PART 1

1. Name and Description of Proposing Body

1.1 This application is made jointly by the Podiatrists Board\(^1\) (which is a body corporate established by s114(1) of the Health Practitioners Competence Assurance Act\(^2\)) and the NZ Society of Podiatrists \(^3\).

1.2 Section 117 of the HPCAA provides for:

\(1\) Every authority appointed by or under this Act is a body corporate with perpetual succession, and has and may exercise all the rights, powers and privileges, and may incur all the liabilities and obligations, of a natural person of full age and capacity.

\(2\) Each authority may exercise its rights and powers, and may incur liabilities or obligations, only for the purpose of exercising its functions.

\(3\) For the purposes of the exercise or performance of the powers, duties, and functions of an authority, the persons who for the time being are the members of the authority are to be taken to be the authority.

\(4\) All decisions relating to the powers, duties, and functions of an authority are to be made—

\(a\) by the authority in accordance with Schedule 3; or

\(b\) by a committee or person authorised to make the decision concerned under a delegation given under clause 17 or clause 19 of Schedule 3.

1.3 The responsibilities of the Board as set out in Section 118 of the HPCAA are:

The functions of each authority appointed in respect of a health profession are as follows:

\(a\) to prescribe the qualifications required for scopes of practice within the profession, and, for that purpose, to accredit and monitor educational institutions and degrees, course of studies, or programmes:

\(b\) to authorise the registration of health practitioners under this Act, and to maintain registers:

\(c\) to consider applications for annual practising certificates:

\(d\) to review and promote the competence of health practitioners:

\(^1\) Hereinafter called “the Board”.

\(^2\) Hereinafter called “the HPCAA”. This Act replaced the previous legislation in 2003.

\(^3\) Hereinafter called “the Society”. See APPENDIX A for “Statement of Intent” from the NZ Society of Podiatrists Inc.
(e) to recognise, accredit, and set programmes to ensure the ongoing competence of health practitioners:

(f) to receive and act on information from health practitioners, employers, and the Health and Disability Commissioner about the competence of health practitioners:

(g) to notify employers, the Accident Compensation Corporation, the Director-General of Health, and the Health and Disability Commissioner that the practice of a health practitioner may pose the risk of harm to the public:

(h) to consider the cases of health practitioners who may be unable to perform the functions required for the practice of the profession:

(i) to set standards of clinical competence, cultural competence, and ethical conduct to be observed by health practitioners of the profession:

(j) to liaise with other authorities appointed under this Act about matters of common interest:

(k) to promote education and training in the profession:

(l) to promote public awareness of the responsibilities of the authority:

(m) to exercise and perform any other functions, powers, and duties that are conferred or imposed on it by or under this Act or any other enactment.

2. Short Description of Application

2.1 The Podiatry profession has been discussing advanced prescribing rights for an extended access to restricted medicines since 1990. The Ministry of Health produced a report written by Professor John Shaw (Wellington; Ministry of Health – 1994) "Prescribing Rights for Podiatrists: Prescribing Rights in New Zealand: a public discussion paper". In it Shaw concluded that Podiatrists have a good case for additional prescribing rights.¹

2.2 This joint application from the Podiatrists’ Board and the New Zealand Society of Podiatrists, to the New Prescribers Advisory Committee is for podiatrists to be recognised as “designated prescribers,” in the Regulations under the Medicines Act 1981.²

2.3 The application is also supported by the New Zealand College of Podiatric Surgery.³

2.4 Podiatrists are health professionals who specialise in care of the foot and lower limb. New Zealand podiatrists wish to have the right to prescribe an extra range of medicines, so as to provide patients with the level of care that would be appropriate for the nature of the medical and surgical services that they provide.

¹ (Shaw 1994 p8)
² and all relevant amendments.
³ See APPENDIX A for a statement of support, following the Statement of Intent.
2.5 Podiatrists are asking for extended rights to prescribe an appropriate range, only, of medicines.

2.6 Podiatrists already have skills in diagnosis and prognosis relating to general health as well as an overview of the general health of their patients. This skill will be applied as responsible prescribers, relating the choice of medicine to a patient’s overall health condition.

2.7 Currently, quality of patient care and safety of the patient is compromised by the delay in obtaining prescription medicines to counteract infection. This delay is caused solely by the necessity to refer the patient to a General Practitioner (GP) to obtain the necessary prescription.

2.8 Referral to a GP also costs the patient an extra fee and may involve an unnecessary payment of a General Medical Services Benefit.

2.9 Granting podiatrists extended prescribing rights will improve patient care and safety. It will decrease costs for the patient and reduce subsidy payments.

2.10 To qualify to become safe “designated prescribers,” all podiatrists wishing to become eligible to prescribe will be required to graduate from a course of study that is approved by the Board as bringing them to the level of skill required. (The ability to prescribe will become a recognised ‘scope of practice’ under the HPCAA.)

2.11 For already trained podiatrists, they will be required to complete a Postgraduate Diploma in Health Science7 (or an equivalent qualification recognised by the Board). Entry requirements for the Postgraduate Diploma will be a Bachelor of Health Science in Podiatry or equivalent qualification recognised by the Board; plus a minimum of three years post basic clinical experience. (See APPENDIX D for the detailed prescription for the Postgraduate Diploma.)

### 3. Principal Contacts

The contacts for this submission and all matters relating to the Podiatrists Board are:

<table>
<thead>
<tr>
<th>For general Board Matters:</th>
<th>For Professional Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annabel Whinam</td>
<td>Trevor Tillotson</td>
</tr>
<tr>
<td>Secretary</td>
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<td></td>
</tr>
</tbody>
</table>

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7 Currently offered by the Auckland University of Technology.
PART 2

4. Prescribing Parameters

4.1 Podiatry services offered to patients include preventative, curative and rehabilitative care in dealing with the examination, diagnosis and treatment of conditions and functions (of the human foot and lower limb) by medical, bio-mechanical and/or surgical methods. (See **APPENDIX B** for an **OVERVIEW OF PODIATRY PRACTICE**.)

4.2 Patients come from a wide range of backgrounds, ages and ethnic groups. They may be referred by a GP or other health professional, or may be self referred.

4.3 Patients do not always present for treatment at the first stages of a problem, but will consult their GP or a podiatrist when the condition gets to the point where they cannot manage the problem themselves. In some cases the condition may be so far advanced as to require major and urgent treatment.

4.4 It is not intended that the extended prescribing rights granted would be used to supply or administer medicine apart from doing so as part of the normal podiatric services provided. Whilst some of the medicines used for podiatric treatment can be used for other treatments, it is not intended that would be within the approved scope of practice for podiatrists under the proposals contained in this submission.

4.5 The scope of practice for podiatrists (as described under the provisions of the HPCAA) would not be limited to podiatrists. The prescribing of the recommended medicines can already be carried out by GPs, so treatment provided by podiatrists would parallel that provided by GPs for the same conditions.

5. Indicative Medicines List

5.1 Podiatrists need to use drug therapy in both non-surgical and surgical cases. The foot and lower limb have a high pre-disposition to infection, compounded by its pre-disposition to impairment of circulation. Therefore both acute and chronic infection and impaired circulation conditions are frequently treated.

5.2 The type and range of medicines required is thus directly related (and confined) to problems arising as a result of foot and lower limb infection, impaired circulation and musculoskeletal dysfunction. Podiatrists are already trained to carry out accurate diagnosis and some prescription for such conditions.

5.3 An indicative list of medicines proposed to be available, together with a brief description, and in each case, and the use of that medicines is set out in detail in **APPENDIX C – CLASSES OF MEDICINES**.
6. Justification

A. Podiatric Treatment

6.1 Podiatric medicine is the primary health care profession that deals with the examination, diagnosis and treatment of conditions and functions of the human foot and lower limb by medical, biomechanical and/or surgical methods.

6.2 Podiatry services offered to patients include preventive, curative and rehabilitative care. The services also include general health advice about conditions which may affect, or have affected the foot or lower limb. Some conditions, such as infections, would be better treated immediately than subject to delay. However they should be assessed properly with radiology, swabs, haematology, renal function tests. (See APPENDIX B for a fuller overview of Podiatry Practice.)

6.3 The podiatrist must make an assessment of the general health of the patient in order to identify appropriate treatment for the foot and lower limb. Therefore, as well as skills in podiatry, skills in diagnosis and prognosis relating to general health are required.

6.4 Podiatric surgical procedures include invasive techniques that require a high level of surgical skill. The procedures used are the same as orthopaedic surgeons use when treating the same condition.

6.5 All registered podiatrists currently carry out minor surgical procedures and administer local anaesthetics. Podiatric Surgeons have performed more invasive surgical procedures of various kinds for approximately fifteen years, with a high level of skill and a low level of resulting complications.

6.6 Podiatrists have the necessary skills and ability to recognise the warning signs of treatment complications requiring referral to other health care providers.

6.7 Podiatrists need to use drug therapy in both non-surgical and surgical cases. The foot has a high predisposition to infection, compounded by its predisposition to impairment of circulation. Therefore both acute and chronic infections are frequently treated.

B. Unnecessary Referral

6.8 At present, when patient care requires a prescription medicine, the podiatrist has to refer the patient to a GP to obtain a prescription, because the medication required does not fall within the podiatrist’s prescribing authority. This can have several deleterious effects on patient management and patient care.

6.9 The patient’s treatment is interrupted, often by several days, allowing pathology and pain to be worsened unnecessarily.

6.10 Some patients attend podiatrists after having received treatment by their GP. The patient and the podiatrist are put in an extremely compromised position by needing to request a prescription consultation. On many occasions the patient has only recently been referred by the GP and has to be referred back for a prescription consultation.
6.11 The process of referral back to a GP for a ‘Prescription Consultation’ only is unsatisfactory for the patient, the podiatrist and the GP.

6.12 In rural areas these disadvantages are compounded by distance.

C. Patient Choice

6.13 Because podiatry patients frequently present directly to the podiatrist without referral from another health professional (the podiatrist is therefore in the role of a primary care specialist) it is important that patients feel confident that the practitioner of their choice is able to treat the presenting condition with skill, full access to appropriate treatment and services, and at a reasonable cost.

6.14 Although there are other health professionals who provide similar services, podiatrists are frequently the provider of first choice because they specialise in the foot and lower limb. For problems involving these areas, they are frequently the first health specialist approached, and thus as the primary care giver, patient/practitioner confidence is high. Granting extended prescribing rights will confirm that confidence and will allow the patient to obtain complete care from their chosen practitioner.

6.15 In addition, the present process can be unnecessarily expensive for the patient, and for the Health Budget, as a patient fee can be incurred at every consultation with the podiatrist and general medical practitioner. This may involve an unnecessary payment of a General Medical Services Benefit.

6.16 Surgical patients are often greatly surprised to find that a podiatrist, whilst qualified to undertake such highly skilled surgery, is not permitted to prescribe some types of medicines. The medicine is identified by the Podiatrist as the necessary treatment, yet she or he still has to refer the patient to a GP to obtain it.

6.17 Many medical podiatric patients are also surprised by having to be referred to a GP for a prescription, when they compare the depth of knowledge podiatrists have in medical care with the prohibition that prevents them from prescribing certain medicines.

D. The Profession’s Ability to Manage Change

6.18 In the past, New Zealand podiatrists have increased their scope of practice without incident.

6.19 In 1975 podiatrists obtained the right to administer the local anaesthetic lignocaine, as described by the First Schedule of the Medicines Regulations 1984. The use of prilocaine, ropivocaine and bupivacaine has been common practice in New Zealand for many years. This has been without incident or deleterious outcome for any patient. All local anaesthetic medicines are supplied to podiatrists through pharmacies. This is clearly a case of practice becoming common and widely accepted by both pharmacists and podiatrists. Granting podiatrists the responsibility for prescribing a wider range of medicines, will align common usage with the Medicines Regulations.

6.20 In 1985 podiatrists obtained the right to take and evaluate radiographs of the foot and ankle.

6.21 In those two instances, the profession implemented both undergraduate and postgraduate training programmes for both local anaesthetic administration and radiology.
Since then, these two innovations have not resulted in a single incident or complaint against a podiatrist.

6.22 The profession has already implemented training in pharmacology\(^8\) in anticipation of the current application for prescribing rights.\(^9\)

**7. Competencies and Education**

7.1 Since 1986, postgraduate courses in Podiatry have been run by both the New Zealand College of Podiatric Surgery, and the New Zealand Society of Podiatrists Inc. Courses are offered to upgrade the diagnostic and treatment skills of practising podiatrists. In parallel with the United States, United Kingdom and Australia, courses that have been introduced, offer more soft tissue and osseous surgical procedures.

7.2 In 1989, the syllabus of the Diploma of Podiatry was upgraded to improve general health assessment skills, and this was followed by its upgrade to degree status. The BHSc(Pod) degree has been awarded since 1992.

7.3 The Bachelor of Health Science in Podiatry (BHSc(Pod)) is awarded on the successful completion of a three year undergraduate degree. Until 2001 this was awarded by the Central Institute of Technology (CIT) in Upper Hutt. From February 2002 the course has been provided by the Auckland University of Technology (AUT) in the Faculty of Health.

7.4 The undergraduate course in Podiatry had been progressively upgraded in recent years and contains pharmacology modules that have some of the necessary outcome criteria required for designated prescribers. The first cohort of students with this new level of expertise graduated from the CIT School of Podiatry in 2000; with the last cohort graduating in 2001, prior to the school being moved to the AUT.

7.5 With the shift to AUT, the pharmacology syllabus was re-written and is now being taught in part generically with midwives, who already have prescription authority. The AUT pharmacology module\(^10\) provides the basic training necessary at the undergraduate level, but further postgraduate training is necessary before the extended prescribing rights can be authorised.

7.6 To qualify to become “designated prescribers,” podiatrists will be subject to the following requirements:

(a) they will have obtained a postgraduate pharmacology qualification from within New Zealand which is accredited by the Board; or

(b) they will have graduated from a course of study undertaken overseas that is recognised as meeting the quality criteria by the Board; and will be able to demonstrate, to the satisfaction of the Board, a minimum of three year’s post basic clinical experience;

(c) they will have attained a Podiatry undergraduate degree, and demonstrated their competency by undergoing a competency audit; then will be accepted on a course of training (e.g. Postgraduate Diploma Prescribing Pathway) approved by the Board.

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\(^8\) See Paper Prescriptor for “Pharmacology for Health Professionals” (Module 557223): AUT BHSc in Podiatry undergraduate programme.

\(^9\) See section 7 & **APPENDIX D**.

\(^10\) Included in the BHSc(Pod).
7.7 A detailed course prescription for the newly accredited Postgraduate Diploma is set out in Appendix D.

7.8 The Board is the body established and authorised by the HPCAA, which has the legislative responsibility for determining the level of postgraduate training required and who should be registered.

7.9 With the granting of extended prescribing rights for podiatrists, the Board will recognise only those podiatrists who have the required level of training as being eligible to exercise those extended rights and hold the Scope of Practice of Podiatric Prescriber. That scope would then be part of each individual podiatrist’s licence to practise. (see Appendix B page 22 – Podiatric Prescriber.)

8. Ongoing Competence

8.1 Under the provisions of the HPCAA the Board has the statutory responsibility for registering suitably qualified people and determining what qualifications are appropriate for that registration. The Board does not act as a training provider, but does approve the relevant courses to be provided by accredited Education Providers.

8.2 Under the previous legislation, the Board had limited powers to monitor the ongoing competence of individual podiatrists. It did have disciplinary powers to deal with a podiatrist against whom a complaint is made, and part of an investigation undertaken as part of that procedure could include an assessment of the practitioner’s competence. There was, however, no provision for regularly assessing ongoing competence on a regular basis.

8.3 Under the HPCAA, the Board now has appropriate powers to assess and monitor ongoing competence of all practitioners. The regime for managing that process is still being fully developed; but sufficient of it is now in place to deal with any issues arising as a result of the extended prescribing rights having been granted. 11

9. Risks and Benefits/Costs Utilisation

The Board has carefully considered what are the various benefits and risks involved for podiatrists to be granted extended prescribing rights as requested and offer the following for consideration.

A. Potential Benefits

9.1 Improved access.

9.2 Increased speed of delivery. The delay in having to interrupt treatment just so the patient can obtain a prescription (from a GP) delays not only the delivery of the required service; but also has the danger of increasing the risk of further deterioration of some conditions. (See also Appendix E, which sets out two cases studies supporting the need for extended prescribing rights.)

11 The “Re-Certification Framework” is being published shortly.
9.3 Improved quality of care.

9.4 Improved identification and management of medication problems because of increased follow up consultation.

9.5 Improved patient education.

9.6 The opportunity for GPs to concentrate on more serious conditions, rather than having to deal with issues which could be dealt with just as competently by a Podiatrist.

9.7 Improvements in the health and well-being of patients.

9.8 Less cost to the General Medical Services Benefit budget.

9.9 Less cost to patients having to undertake extra GP visits.

9.10 Reduction in duplication of services.

9.11 Increased intervention options, and improved patient confidence in the health system.

9.12 Blurring of professional boundaries, which optimises costs and is better for patients.

B. Potential Risks

9.13 A potential for inappropriate prescribing. 

(This risk is considered to be no greater than for any prescriber in any other health services area and can be reduced or eliminated by the correct training and monitoring. The Board, the NZ College of Podiatric Surgery and the Society are confident that there will be little, if any, inappropriate prescribing on the part of podiatrists mainly because there is no evidence that such happens now. In any event, the postgraduate training proposed as part of this new regime, and the monitoring procedures being instituted by the Board will additionally minimise this risk.)

9.14 A potential for dispensing problems in rural areas.

9.15 Confusion by consumers about respective roles and functions of health professionals they should consult.

9.16 A potential increase in antibiotic resistance.

9.17 Opposition to podiatrists prescribing, (“patch protection”) by other health professionals.

9.18 An increase in practitioners’ costs to cover monitoring of prescribers.

C. Costs Utilisation

9.19 Although the granting of extended prescribing rights to podiatrists would add a valuable extra dimension to the services able to be offered to patients, there would be no extra cost to the patient. In fact, as stated in A (Potential Benefits) above, the cost would be less because any prescribing necessary would be as part of the normal consultation, and would not involved separate visits to another health professional.
9.20 Accordingly, there would also be a reduced cost in time for both practitioner and patient, making for much more efficient use of practitioner time.

9.21 There would also be a cost saving to the tax-payer as there would be less paid by way of subsidy to the GP. (See 9.8 above.)

9.22 In deciding whether to licence a particular practitioner to carry out the full range of prescribing rights, the Board would have an extra ‘item’ on the list of requirements. However, this is considered to involve only a small amount of extra work and could be easily encompassed within the present registration regime.

9.23 There would be extra cost in training, but since this is now a requirement of the HPCAA and already in part included in current training courses, that can be partially discounted.

9.24 Post-graduate training for current practitioners would involve those individual podiatrists in whatever is the cost of the course. However, it is most likely that the cost will be absorbed by individual practitioners as part of their ongoing costs of maintaining their skills and expertise. It is unlikely that such a cost could easily be passed on to patients, given normal market competition.

9.25 Overall then, it is considered that the granting of extended prescribing rights would result in a safer, more professional, efficient, effective and better cost utilisation regime – with the risks significantly outweighed by the benefits.

10. Pharmaco-Economic Evaluation

10.1 The Board recognises the importance of pharmaco-economics and considers the following as being key areas:

i. the health needs of all eligible people within New Zealand;

ii. the particular needs of Maori, Pacific Island peoples and those of other ethnic groups;

iii. the availability and suitability of existing pharmaceuticals;

iv. the clinical benefits and risks of pharmaceuticals;

v. the cost-effectiveness of meeting health needs by use of pharmaceuticals, rather than by other health care modalities;

vi. the budgetary impact (in terms of the pharmaceutical budget and the overall health budget) of podiatric prescribing;

vii. the direct cost to health service users;
viii. the Government's priorities for health funding, as set out in any objectives notified to the Board.

**Benefits and Costs**

10.2 Pharmaco-economic evaluation of podiatric prescribing involves the identification of the benefits and costs of podiatric prescribing.

10.3 The benefits include improvements in the maintenance of, or prevention of deterioration in, health status (including improvements in length of life, reduction in illness and an improvement to the quality of life).

10.4 An important part of the treatment provided by podiatrists is that which enables a patient to achieve the greatest possible capacity to choose their lifestyle – be it economically, socially, or otherwise. It is also recognised that there are a combination of factors affecting patient groups, such as age, gender, symptoms, disease severity – all of which must be taken into account.

10.5 The costs are the resources (including time and money) that are used to generate the benefits. These include, General Practice consultations – a sharing of resource costs between a DHB and patients.

10.6 Both the patient and the DHB contribute to the costs of the consultation. General practice costs can be calculated and identified easily. However, costs for the patient can be divided into two parts – direct and indirect.

10.7 Direct costs include the charges for consultations and any prescribed medicine which is not fully subsidised; and can also include the costs of transportation to and from a doctor’s clinic.

10.8 Indirect costs could be patient time costs; (for example, the time spent by a patient at a doctor’s clinic or in receiving treatment) and productivity costs (such as a loss in economic productivity due to sickness or treatment). These indirect costs are not easily measured, as there is no available data on such costs or how to measure them across patient sub-groups. However they cannot be ignored and may well present individual patients with significant challenges and hardship.

10.9 Both direct and indirect cost savings can be achieved by increasing Podiatric prescribing authority. (Some of the following points are covered earlier in this submission, but are also included here for completeness.)

10.10 Because there would be no additional charges for general practice consultations, both the DHB and the patient would save.

10.11 There would be reduced transport costs since only one trip would need to be made for treatment – not one to both the podiatrist and GP.

10.12 In the same way, there would be reduced time costs for the patient, podiatrist and the GP by a patient not having to visit more than one practitioner.

10.13 There would not be a reduction in patient economic productivity because appropriate and timely treatment would be managed by one only practitioner.
Hospitalisation Offsets and Savings From Decreased Use of Other Treatment

10.14 Appropriate and timely introduction of a drug therapy by the podiatrist can reduce hospitalisation and to the extent that proven offsets occur, these can be counted as savings. Hospitalisation offsets can be calculated by estimating risks of hospitalisation over the given timeframe experienced by each patient; then applying the average price per hospitalisation for the relevant diagnosis.

10.15 Risks of hospitalisation can be modelled from clinical trial data and uptake rates. Hospitalisation costs are calculated using volume-weighted average Diagnostic Related Group (DRG) cost weights.

10.16 Hospital cost offsets are part of the net resource use of a drug intervention and measuring net resource use is the goal of economic analysis. Timely introduction of a drug intervention by the podiatrist is critical to this process.

10.17 Lower hospitalisations resulting from appropriate and timely podiatric intervention should be incorporated as cost offsets.

Quality Adjusted Life Years (QALYs) Saved

10.18 The aims of health interventions are to cure or ameliorate illness and disability, and to prevent the onset or worsening of illness, disability and premature death. These different outcomes can be covered by a single measure such as Quality Adjusted Life Years (QALYs) saved. This differs from what happens in formal cost-benefit analyses, where benefits are all measured in monetary terms. Cost-utility analysis is achievable and practical, and yet still allows comparison across different health interventions. QALYs incorporate a medicine’s impact on both death and illness and the effects of side effects.

10.19 Hospitalisation offsets can also be measured as QALYs saved. QALY gains for patients who access treatments with the funds freed up from reduced hospitalisations or hospital beds made available. This is consistent with practice where decreased hospitalisations for one condition will mean greater availability of treatment for patients with other conditions. Savings from decreased hospitalisations will also allow more people to get other treatments generally.

Reduced Costs to Other Government Agencies

10.20 Direct health costs and offsets borne by government agencies other than DHB’s would be reduced – for example reduced ACC rehabilitation costs.

The Economic Outcome of Extending Prescribing Authority for Podiatrists

10.21 As well as enhancing patient care and safety by improving access to health care through an increased use of the skills of Podiatrists; granting extended prescribing rights will also decrease costs for the patient and reduce subsidy payments by various government agencies.
10.22 It will also:

- reduce waiting times;
- widen the choice for the consumers of health care;
- facilitate timely access to appropriate professional skills.

10.23 All of which will be of significant private and public economic benefit.

References:

- Pharmac. A prescription for pharmacoeconomic analysis. Version 1.1 September 2004
## 11. Consultation

11.1 The following people and organisations have been consulted in the preparation of this submission:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organisation</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr Gary Wilson</td>
<td>Chief Executive Officer</td>
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11.2 Comments and suggestions from those consulted are set out in APPENDIX G, together with the Board’s responses.

12. Other Issues

A. Access to Laboratory Services

12.1 When cases involving infection arise, making an accurate diagnosis is important in deciding the appropriate treatment. This is accomplished by taking samples of the infection and sending to a laboratory for analysis and report; after which the podiatrist can decide on the correct medication to prescribe.

12.2 Until cessation of provision of the service approximately five years ago, podiatrists had access to pathology laboratory services on a ‘no fee’ basis. (The costs were paid by out of Vote: Health.)

12.3 Access to pathology laboratory testing services is important as it enables podiatrists to determine quickly the efficacy of the medicine for any particular condition. In some instances, it is possible to make such a determination only after the pathology of the condition has been confirmed.

12.4 Now, because of discrimination towards podiatrists, they have no direct access to pathology laboratories as of right. Obtaining testing services are available only on payment of an extra discriminatory fee paid by the patient. The services can also be obtained by making a referral to a GP, but that may involve delays in treatment and an extra doctor’s fee to the patient as well as the General Services Medical Benefit.

12.5 Making laboratory services available to podiatrists as for other health professionals would reduce the cost to the patient. It would also be cost neutral in terms of the General Services Medical Benefit, because the Benefit would still be paid to the laboratory as at present.

12.6 The Board will apply to the Ministry of Health for access to the Laboratory Services Subsidy for podiatry patients.
B. Legislative Implications

12.7 For podiatrists to become designated prescribers under the Medicines Act 1981, amendments to the Regulations under that Act will be required. Both qualifications obtained in New Zealand and equivalent qualifications obtained overseas will need to be recognised by the criteria being developed by the Board for eligibility to become designated prescribers.

12.8 Other countries may also introduce qualifications enabling podiatrists in those countries to prescribe to the extent asked for in this submission. Under the current legislation, the Board has the power to recognise, or not recognise qualifications obtained outside New Zealand (except for the provisions of the Trans Tasman Mutual Recognition Act). Under the HPCAA the Board has the same power.

13. Conclusion

Considering the principles adopted by the Board, the evidence presented in this submission, and the consultation undertaken it is submitted that the Committee can safely and confidently grant suitably qualified podiatrists the extra prescribing rights. The Board looks forward to working with the NPAC and the Ministry of Health in implementing the required training, monitoring and audit regimes necessary to ensure safer and better patient outcomes within the intent and provisions of the HPCAA.
APPENDIX A – STATEMENT OF INTENT

Statement of Intent – New Zealand Society of Podiatrists Inc

The following Statement of Intent has been prepared by the New Zealand Society of Podiatrists to support the application of the Podiatrists Board.

“This document presents the New Zealand Society of Podiatrists’ wishes in respect to medicines we would like to prescribe in the near future. With technological advances in society, consumers have become and will continue to be more discerning in their demands. In the medical world specialities and sub-specialities develop to meet these new demands. Podiatrists are primary health care professionals who are continuing to develop themselves professionally in response to these demands. The application to extend prescribing rights to podiatrists is an example of this development. The Society believes such an extension would increase the provision of health care to the consumer for the following reasons:

Provide treatment modalities that may be otherwise unavailable.

Reduce the cost and time to the consumer as incurred by referral (which is usually to a GP).

Create an increase in the choice of health professionals for the consumer leading to fair competition in the market place.

Create efficiency gains by reducing consumer burden on GPs.

Potential to reduce the pharmaceutical costs to the consumer and the taxpayer as podiatrists more frequently utilise non-medicine treatment plans prior to medicine treatment regimes being implemented.

Pharmacological management of foot disorders enabling the consumer to benefit from better holistic treatment than is currently available.

Accordingly the Society requests that podiatrists be able to prescribe the types of medicines listed in APPENDIX C for the treatment of foot pathology to patients in their care.”
Statement of Support for Advancing Prescribing Rights to Suitably Trained Podiatrists - New Zealand College of Podiatric Surgery

The following statement has been prepared by the New Zealand College of Podiatric Surgery to support the application of the Podiatrists Board.

“The New Zealand College of Podiatric Surgery (NZCPS) is a post-graduate educational trust body which was established in 1988. It is recognised by the Podiatrists Board as being responsible for the prescription, delivery and examination of podiatrists who have elected to extend their field of practice into the area of foot surgery. The practice of podiatric surgery in New Zealand has developed since the early 1980's and is consistent with similar professional advances in the United Kingdom, Australia, South Africa and the United States. Within all of the medical professions there has developed modern trends of intra professional specialisation and along with that a heightened trend of consumer awareness and demand. The introduction of podiatric surgery has occurred in answer to those demands. The responsible way in which the college has embraced and delivered the postgraduate education and surgical training of its members demonstrates that it is seriously committed to providing the safest and best possible surgical treatment of the foot. The invasive nature of surgery however can produce complications requiring urgent treatment by way of the prescription of a range of appropriate medications. Prescription medications, which are sometimes needed to complete the safe management of the surgical patient, as well as those seeking routine palliative foot care, are currently unavailable to the podiatrist and podiatric surgeon. Delays in getting patients the medication they need are not in the best interest of the patient or the podiatrist. The NZCPS believes that the level of safe patient care would be advanced should extended prescribing rights be awarded to podiatrists and joins with the NZ Society of Podiatrists in support of the Podiatrists Board’s submission for the following reasons:

Provide safer treatment pathways to match the level of responsibility accompanying the many invasive procedures carried out by palliative and surgical podiatrists.

Decrease unnecessary treatment costs, to patients and the Ministry of Health, generated by the need for patients to see general practitioners, simply, for prescription appointments.

Decrease unnecessary and unsafe delays in pharmacological treatment which currently may subject the patient to increased risk, pain and morbidity.

Allowing patients freedom of choice, which is theirs by right, and to allow them to develop confidence in their choice of practitioner by the practitioner being able to safely and efficiently fulfil their total treatment obligations.

The New Zealand College of Podiatric Surgery therefore formally requests the extension of prescribing rights to the podiatry profession in alignment with the medications listed in APPENDIX C of the Podiatrists Board submission.”
APPENDIX B – OVERVIEW OF PODIATRIC PRACTICE

[Note: This APPENDIX is intended to become a stand alone document, after suitable editing, so may repeat some of the material elsewhere.]

CONTENTS

Definition of Podiatry........................................................................................................ 21
Scopes of Practice as Defined by the Podiatrists Board Under the Health Practitioners
Competence Assurance Act 2003.................................................................................... 22
Podiatric Treatment .......................................................................................................... 23
Identifying the Need for Anti-Bacterial Prescription Medicine....................................... 23
The Reaction of Patients When First Referred to a GP for a Prescription .................... 24
Preoperative Screening ................................................................................................. 25
Interoperative Monitoring................................................................................................. 25
Postoperative Screening and After Care ......................................................................... 25
Anaesthetics ..................................................................................................................... 26
Use of Prescription Medicines to Achieve Optimal Health Outcomes for Surgical
Patients.......................................................................................................................... 26
Post-Surgical Care of the Podiatric Surgical Patient........................................................ 27
Role of the Surgical Podiatrist in Rehabilitation............................................................. 28
Common Types of Surgical Podiatry Procedures .......................................................... 28

Definition of Podiatry

1. Podiatry is the primary health care profession that deals with the examination, diagnosis, prevention and treatment of conditions and functions of the human foot and lower limb by medical and/or surgical methods.

2. Correspondingly, a podiatrist is the medical professional who most commonly deals with systemic health problems or injuries relating to the foot and lower limb.

3. These medical health problems are those affecting the body system, including bone and joint disorders, biomechanical dysfunction, soft tissue and muscular pathologies, neurological, circulatory disease, dermatological conditions and endocrinological disorders.

4. Podiatric medical services to patients include preventive, palliative, curative, rehabilitative and surgical care.

5. Podiatrists give preventive management advice to those at risk of foot disorders due to health problems, such as diabetes and neurological or vascular impairment.

6. Podiatrists may also play a role in the rehabilitative care of patients with prosthetic lower limb attachments, by assisting in ulcer management.
Scopes of Practice as defined by the Podiatrists Board under the Health Practitioners Competence Assurance Act 2003

1. **PODIATRIST**

“A registered primary health care practitioner (including those previously registered as a chiropodist) who utilises medical, physical, palliative and surgical means other than those prescribed in the Podiatric Surgeon Scope of Practice, to provide diagnostic, preventative and rehabilitative treatment of conditions affecting the feet and lower limbs.”

**Qualification**

“A Bachelor of Health Science in Podiatry from an accredited New Zealand University or equivalent overseas qualification as determined by the Podiatrists Board.”

2. **PODIATRIC SURGEON**

“A registered primary health care practitioner who holds the scope of practice of podiatrist and is further qualified to perform foot surgery by way of sharp toe nail wedge resection; surgical correction of lesser digital deformities affecting phalanges, metatarsals and associated structures; surgical corrections of deformities affecting the first toe, first metatarsals, mid-tarsus, rear foot and associated structures; surgical correction and removal of pathological subcutaneous structures such as tendinous and nervous tissues and other soft tissue masses of the foot.”

**Qualification**

“A Postgraduate qualification in Podiatric Surgery as determined by the Podiatrists Board or equivalent overseas qualification.”

3. **PODIATRIC RADIOGRAPHIC IMAGER**

“A registered primary health care practitioner who holds the scope of practice of podiatrist, is qualified to use radiological equipment, and is licensed by the National Radiation Laboratory, to obtain radiographic images of the foot, ankle and lower leg.

**Qualification**

“As part of the New Zealand undergraduate Bachelor of Health Science in Podiatry or satisfactory completion of an accredited postgraduate training course in podiatric radiography.”

4. **PODIATRIC PRESCRIBER**

“A registered primary health care practitioner who holds the scope of practice of podiatrist and is further qualified to prescribe a list of medicines approved by the Podiatrists Board.”

**Qualification**

“A postgraduate qualification in Podiatric Prescribing as determined by the Podiatrists Board or equivalent overseas qualification.”
Podiatric Treatment

7. Effective podiatric treatment requires a broad understanding of the general health of the patient, and the way in which the foot and lower leg are affected by the health status of the body as a whole.

8. Appropriate treatment for the foot and lower limb must be identified in the context of the patient’s overall health.

9. Podiatrists are able to diagnose and treat any complications of the foot and lower leg that affect the lower limb, including skin and nail disorders.

10. Patients may present directly to podiatrists without being referred.¹²

11. Internationally, podiatric skill has been steadily increasing over the decades. A greater diagnostic skill has run parallel to more soft tissue and osseous (bone) surgical procedures being introduced into podiatry.

12. In New Zealand, this need for greater skill has been met by upgrading the syllabus of the undergraduate degree in podiatry, and by continually upgrading postgraduate courses, including surgical and pharmacological training.

13. The New Zealand public are presenting to podiatrists as their primary health care provider expecting complete management and treatment of their lower limb disorders.

Identifying the Need for Anti-Bacterial Prescription Medicine

14. Infections are frequently treated by the podiatrist because the foot has a high predisposition to infection, compounded by its predisposition to musculoskeletal, neurological and vascular impairment.

15. This is particularly important in the high percentage of elderly, diabetic, neurological and vascularity impaired patients who are routinely treated by podiatrists for palliative care.

16. The usual scenario is that a patient presents to a podiatrist for treatment, with a localised infectious problem.
   (a) The podiatrist takes a swab of the wound and sends the sample to a pathology laboratory for sensitivity analysis.
   (b) The podiatrist dresses and treats the problem, but must refer to the general practitioner to initiate the antibiotic therapy.
   (c) Having made a diagnosis, the podiatrist may suggest the antibiotic of choice in discussion with the general practitioner.
   (d) In many cases the general practitioner may not have knowledge of the procedure that has been performed, and in most cases they will not have been involved in the management of the original procedure.

¹² When a patient chooses to approach a podiatrist as his/her first contact with a health service provider it is known as “primary referral” or “self referral.” It makes the podiatrist a “primary” health service provider. When a health professional accepts a patient on referral from primary provider he/she is a “secondary” provider. Podiatrists are therefore both primary and secondary health service providers.
(e) This situation is not in the best interest of the patient, who usually prefers and expects that the follow up care will be performed by the practitioner whom they have initially selected to treat the problem.

**The Reaction of Patient When First Referred to a GP for a Prescription**

17. Surgical patients are often greatly surprised to find that a podiatrist, whilst qualified to undertake such highly skilled surgery, is not permitted to prescribe some types of medicines. The medicine is identified by the Podiatrist as the necessary treatment, yet she or he still has to refer the patient to a GP to obtain it.

18. Many medical podiatric patients are also surprised by having to be referred to a GP for a prescription, when they compare the depth of knowledge podiatrists have in medical care with the prohibition that prevents them from prescribing certain medicines.

19. Podiatrists and podiatric surgeons are trained to administer local anaesthetic and to perform soft tissue and in the case of podiatric surgeons, osseous procedures. However, they are not able to provide full after care required to treat the patient effectively, because they are unlicensed to prescribe some appropriate medicines independently.

20. Podiatrists and podiatric surgeons have administered local anaesthetic for almost 30 years and podiatric surgeons have performed invasive surgical procedures of various kinds for approximately fifteen years, with a high level of skill and a low level of resulting complications.

21. Although a low level of complications occur, an important part of the skill of podiatry is the ability to recognise the warning signs, and to judge whether or not it is necessary to refer the patient to a GP.

22. For patient safety, parameters are adhered to, such as using the medicine with the highest margin of patient safety, and recognising that when a localised infection begins to pose a systemic threat an appropriate referral must be made.

23. All podiatrists are trained at undergraduate level in the surgical management of toenails and soft tissue lesions such as verrucae. Postgraduate training is undertaken to carry out most of the surgical procedures carried out on the foot and ankle. (Orthopaedic surgeons carry out the same procedures and more.) The procedures carried out by podiatrists and podiatric surgeons include (but are not limited to):

Surgery to:

(a) soft tissue lesions occurring in the skin and its associated structures, such as blunt dissection of verrucae, and sharp dissection of ganglions and other cystic swellings;

(b) toe nails and their associated structures, such as chronic and acute bacterially infected ingrown toe nails, thickened deformed nails and fungally infected toe nails. Nail surgery is performed utilising either chemical ablation (phenolisation) or sharp dissection (wedge resection);

(c) bone and its associated structures, such as joint surgery (for example in the toes) to correct bony prominences, bunions and hammer toes;

(d) muscle tendons and joint ligaments during joint surgery;

(e) nerve tissue during nerve entrapment (neuroma) procedures.
Preoperative Screening

24. Pre-operative Screening includes:

(a) history of the complaint;
(b) family history;
(c) social history;
(d) medical/surgical history;
(e) medicine review (current and required);
(f) review of allergies;
(g) physical examination (vital signs);
(h) systems review (neurological and vascular assessment);
(i) biomechanical assessment (leg and foot structural/functional assessment);
(j) referral for x-rays and blood test;
(k) informed consent.

Interoperative Monitoring

25. Interoperative Monitoring includes:

(i) regular checks on blood pressure and pulse rate;
(ii) patient comfort assessment;
(iii) anaesthesia testing;
(iv) tourniquet time monitoring;
(v) disposable sharps count (needles, sutures and scalpel blades).

Postoperative Screening and After Care

26. Postoperative screening and after care includes:

(i) post surgical recovery monitoring in the recovery room;
(ii) fitting of postoperative shoe/s;
(iii) post surgical blood pressure, pulse rate, temperature and comfort levels recorded;
(iv) oral and written postoperative instructions given;
(v) emergency procedures outlined (24hr access phone numbers);
(vi) follow-up treatment plan organised (dressing appointments and future follow-up);
(vii) pain medicine organised.
Anaesthetics

27. Currently most podiatric surgery is carried out utilising regional local anaesthesia administered by the podiatrist.

(a) Local anaesthesia is the anaesthetic method of choice primarily because:
   (i) there is decreased medical risk to the patient;
   (ii) local anaesthetics do not produce the same degree of postoperative nausea or illness as does general anaesthesia;
   (iii) the recovery phase is quicker and more comfortable;

(b) Local anaesthesia also decreases the expense of the procedure, as there is no need to occupy an anaesthetist or a hospital bed.

   (i) Podiatrists do, however, still require access to surgical facilities which provide the option of using general anaesthesia administered by an anaesthetist, because of:

      (a) patient choice; or
      (b) necessity with, for example, anxious patients.

(c) Podiatrists do not administer general anaesthetics themselves, nor do they wish to do so.

Use of Prescription Medicines to Achieve Optimal Health Outcomes for Surgical Patients

28. See APPENDIX C for details of the classes of medicine required for surgical podiatry. In this section only the reasons for using medicines are discussed.

29. Medicines are sometimes needed to counteract high patient anxiety. The operation normally takes place with regional or local anaesthetics and the patient conscious. Therefore, for highly anxious patients, calming medicine is necessary. These are the more commonly used categories of medicine required by podiatric surgical patients.

30. Emergency medicine is less commonly needed, but on extremely rare occasions patients may be sensitised to injectable local analgesic agents and develop life threatening Acute Anaphylactic Shock Syndrome. The symptoms result in narrowing of the airways because of an allergic reaction that effectively cuts off the supply of oxygen to the lungs. Injectable emergency medicine is then needed to effect immediate re-opening of the airways in order to preserve life until the patient is seen by an emergency medicine team.

31. It is extremely common, especially with toenail surgery and some chronic toe deformities, to find a patient has an infection at the operation site. Systemic antibiotics are commonly needed for the patient pre-operatively to bring infection under control prior to having surgery and post operatively if they are at risk of recurrence of bacterial infection.
32. Some patients are at greater risk of developing infections post surgically – for example, because of previous surgical introduction of metal implants into bone, or because of previous disease processes such as bacterial endocarditis (bacterial infection of the heart valves). In order to minimise the risks of post-operative infection in such cases, prophylactic systemic antibiotic therapy would be needed pre-surgically almost immediately and for a short period post-operatively. Topical antibiotics are also indicated in some pre- and post-operative infective cases.

33. Fungal skin and nail disease is an everyday encounter for the podiatrist, and combined fungal/bacterial skin infections are common. For patients such conditions cause chronic irritation and permanent nail damage and can hinder surgical treatment of some painful nail, toe and foot deformities. In much the same way, bacterial infections, fungal infections need to be brought under control prior to carrying out a surgical procedure. Toenails require vigorous treatment by way of systemic anti-fungal therapy whilst skin conditions may respond well to topical anti-fungal preparations.

34. It is not uncommon for combination fungal/bacterial skin infections to exist. Combination topical antibiotic/anti-fungal preparations may be appropriate to clear up the infection pre-operatively.

35. Non Steroidal Anti-Inflammatory Drugs (NSAIDs) are anti-inflammatory analgesic medicines often prescribed for pain relief both pre- and post-operatively. Injectable steroidal medicines have a place in aiding differential diagnosis which influences the decision as to whether surgery is indicated or not (e.g. digital neuritis/neuroma formation). They can also be used in the pre-surgical treatment of joint and some connective/soft tissue disorders.

36. Often opportunistic bacteria infect a purely fungal wound, making an easily controllable infection painful, and often dangerous in at-risk cases.

37. Pain relief medicine is also required post-operatively.

**Post-Surgical Care of the Podiatric Surgical Patient**

38. The podiatric surgeon is responsible for the post-surgical care of the surgical patient.

39. Immediately following surgery the patient is transferred to the recovery room where the patient is made comfortable whilst oral and written instructions are given. A return appointment is made (usually 7 days post-operatively) for a first dressing.

40. A second follow-up appointment is made 2 weeks post-operatively for suture removal. The patient is usually seen again 4 weeks post-operatively and again at 12 weeks post-operatively in order to monitor progress and rehabilitation.

41. It is essential that the patient clearly understands their own responsibilities regarding their after care in order that a positive surgical outcome is not compromised. The post-operative instructions are also explained to the patient’s caregiver if they have one.

42. Surgical patients are not allowed to drive immediately following surgery and so it is important to confirm that they have arranged for means of transportation home following their surgery.

43. Pain medicine is issued immediately following the procedure and the patient advised about the use and need of pain medicine over the first week following surgery.
44. The patient is given 24hr emergency telephone contact numbers in the unlikely event of the development of any post-surgical complication arising.

45. The patient is contacted the next day by the surgeon in order to get a verbal report of their level of comfort and to reassure the patient immediately post-operatively.

**Role of the Surgical Podiatrist in Rehabilitation:**

46. The surgical podiatrist is responsible for organising investigations such as post-surgical radiographs and blood tests as well as managing any post-surgical complications associated with the surgery.

47. Apart from the usual monthly and three monthly follow-up consultations the podiatric surgeon also refers the post-surgical patient to the appropriate health practitioner for post-surgical rehabilitation. A common example would be a referral to a physiotherapist for advice and therapy following joint surgery.

48. The surgical podiatrist often receives surgical referrals from general medical practitioners and from other podiatric practitioners. In such cases, post-surgery, the surgical patient is often followed up by the original referring practitioner.

**Common Types of Surgical Podiatry Procedures**

49. The types of surgical procedures commonly performed by podiatrists at this time include:

   (a) skin to bone nail procedures
   (b) digital arthroplasty and arthrodesis for surgical correction of hammer and mallet toe deformities
   (c) tendon lengthening
   (d) tenotomy
   (e) digital neurofibrectomy
   (f) metatarsal osteotomy
   (g) osteochondrectomy and exostomy
   (h) verruca and other soft tissue procedures
APPENDIX C – CLASSES OF MEDICINES

[Note: This APPENDIX is intended to become a stand alone document, after suitable editing, so may repeat some of the material elsewhere.]

CONTENTS

Medicines Required For Best Safe Practice ................................................................. 29
Appropriate Medicine for Prescription by Podiatrists ........................................... 29
Clinical Indications For Currently Prescribed Medicines : Local Anaesthetics ..... 30
Clinical Indications For Requested Medicines : Local Anaesthetics ......................... 30
Clinical Indications For Requested Medications : Antibacterial ............................ 31
Clinical Indications For Requested Medications : Antifungal ................................. 34
Clinical Indications For Requested Medications : NSAIDs ............................... 35
Clinical Indications For Requested Medications : SAI'Ds ........................................ 36
Clinical Indications For Requested Medications : Analgesic ................................. 37
Clinical Indications For Requested Medications : Anxiolytics/sedatives ............... 37
References ................................................................................................................. 38

[Note: This APPENDIX is also intended to eventually become a stand alone document, so repeats some of the material elsewhere in this submission.]

Medicines Required For Best Safe Practice

1. Podiatrists need access to a range of prescription medicine. They are often the primary health care provider to be approached by patients with problems of the foot and lower limb. In order to achieve optimum health outcomes, Podiatrists, like General Practitioners (GPs) require a wide choice of medicine to ensure best safe practice for the patient.

2. Podiatrists have skills in diagnosis and treatment relating to the general health as well as to the care of the foot and lower limb. This skill is needed to be responsible prescribers.

3. To assist the New Prescribers Advisory Committee in understanding the clinical philosophy of podiatry in respect to podiatric prescribing, this submission has included a ‘Guide’ which represents the Podiatrists Board and the NZ Society of Podiatrists practice philosophy. [See APPENDIX F]

Appropriate Medicine for Prescription by Podiatrists

4. To assist in achieving optimum health outcomes it would be appropriate for podiatrists to be able to prescribe the medicine as listed in the following tables. The use of these medicines is also briefly described.
### Clinical Indications For Currently Prescribed Medicines : Local Anaesthetics

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Duration of Action</th>
<th>Clinical Use in Podiatry</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIGNOCAINE HYDROCHLORIDE (XYLOCAINE)</td>
<td>Amide</td>
<td>Injection</td>
<td>1% &amp; 2%</td>
<td>Short (90 – 120 Minutes)</td>
<td>Infiltration.Peripheral nerve blocks.(eg management of verrucae pedis and onychocryptosis)</td>
<td>Short acting potential local anaesthesia with accepted low level of toxicity.</td>
</tr>
</tbody>
</table>

### Clinical Indications For Requested Medicines : Local Anaesthetics

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Duration of Action</th>
<th>Clinical Use in Podiatry</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRILOCAINE HYDROCHLORIDE (CITANEST)</td>
<td>Amide</td>
<td>Injection</td>
<td>0.5%, 1% &amp; 2% with and without felypressin 0.003 i.u./ml. Injection</td>
<td>Moderate</td>
<td>Infiltration.Peripheral nerve blocks.(eg management of verrucae pedis and onychocryptosis)</td>
<td>Methaemo- globinaemia at high doses. Least systemic toxicity of amides.</td>
</tr>
<tr>
<td>ROPIVACAINE HYDROCHLORIDE (NAROPIN)</td>
<td>Amide</td>
<td>Injection</td>
<td>0.2, 0.5, 0.75 &amp; 1%</td>
<td>Long (6-12hrs)</td>
<td>Intra-articular, major and minor nerve block and infiltration anaesthesia (eg diagnosis of chronic regional pain syndrome)</td>
<td>Long acting local anaesthetic which is less cardiotoxic than bupivacaine. Ropivacaine provides less intense motor block than bupivacaine.</td>
</tr>
<tr>
<td>BIPUVICAINE HYDROCHLORIDE (MARCAIN)</td>
<td>Amide</td>
<td>Injection</td>
<td>2mg/kg of body weight. 0.25% &amp; 0.5%</td>
<td>Long (half life 1.5 – 5.5 hours).</td>
<td>Intra-articular, major and minor nerve block and infiltration anaesthesia and infiltration for surgical procedures – osseous or soft tissues.</td>
<td>Systematically absorbed 95%, plasma bound to protein. A long acting anaesthetic, provides intense motor nerve and sensory nerve block.</td>
</tr>
</tbody>
</table>
### Clinical Indications For Requested Medications : Antibacterial

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMOXYCILLIN TRihydrate with CLAVULANALIC ACID</td>
<td>Antibacterial</td>
<td>Oral Tablet, Oral suspension</td>
<td>amoxycillin 500 mg with potassium clavulanate 125 mg Grans for oral liq amoxycillin 125 mg with potassium clavulanate 31.25 mg per 5 ml 100 ml Grans for oral liq amoxycillin 250 mg with potassium clavulanate 62.5 mg per 5 ml</td>
<td>Foot infections related to gram-negative bacilli. When indicated in the treatment of foot infections where it is necessary to extend the antimicrobial action of amoxycillin by the addition of clavulanic acid (effective against beta- lactamase producing organisms). Examples of these organisms with significance in podiatry include; beta- lactamase producing S.Epidermis, E. coli, and Klebsiella sp. Emerging Infectious Diseases, Feb 2003 v9 i2 p251(4) Photorhabdus species: bioluminescent bacteria as emerging human pathogens? (Dispatches). John G. Gerrard; Samantha McNevin; David Alfredson; Ross Forgan-Smith; Neil Fraser.</td>
</tr>
<tr>
<td>AMOXYCILLIN</td>
<td>Antibacterial</td>
<td>Oral Capsule</td>
<td>Capsules (250 mg, 500 mg).Adults, 250 mg every 8 hours Children, (under 20kg) 20 mg/kg/day in equally divided doses every 8 hours.</td>
<td>For the treatment of infections due to susceptible strains of gram-positive organisms such as Streptococcus species and non- penicillinase producing staphylococci. Used for the treatment of gram-negative E. coli. This medicine is useful in the treatment of polymicrobial infections of plantar foot ulcers when combined with local wound care as provided by the podiatrist. Therapy is guided by culture and sensitivity tests and clinical response. Role of antibiotic therapy in diabetic foot management, Diabetes &amp; Metabolism, Volume 26, Issue 3, May 2000, Pages 219-224 Hartemann-Heurtier, A; Marty, L; Ha Van, G; Grimaldi, A</td>
</tr>
<tr>
<td>Medicine</td>
<td>Class</td>
<td>Administration Route</td>
<td>Preparation Strength</td>
<td>Clinical Use in Podiatry</td>
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</tr>
<tr>
<td>CEFACLOR</td>
<td>Antibacterial</td>
<td>Oral Capsule</td>
<td>CEPHALEXIN MONOHYDRATE Capsule (250 mg, 500 mg). Adults, 1 gm to 4 gm daily in divided doses. Children, 25 to 100 mg/kg/day up to 1-4 gm per day.</td>
<td>A first generation cephalosporin, for the treatment of a wide range of gram-negative and gram-positive organisms associated with cellulitis, abscess, lymphangitis and other skin and soft tissue infections of the foot.</td>
</tr>
<tr>
<td>ERYTHROMYCIN</td>
<td>Antibacterial</td>
<td>Oral Capsule</td>
<td>Capsules 250 or 400mg (available as ethyl succinate base), Initially, 500mg Adults, 1 gm daily in divided doses (eg 2 x 500gms or 4 x 250 gms). Children, 30 to 50 mg/kg/day in 2-4 divided doses.</td>
<td>For the treatment of foot infections due to Streptococcus pyogenes (group A beta-haemolytic) and Staphylococcus aureus. Particularly appropriate for the podiatric management of paronychia (infected nail sulcus). Corynebacterium minutissimum is the bacteria that leads to cutaneous eruptions of erythrasma and is the most common cause of interdigital foot infections. Due to organism resistance to this medicine, culture and sensitivity testing should be undertaken.</td>
</tr>
<tr>
<td>Medicine</td>
<td>Class</td>
<td>Administration Route</td>
<td>Preparation Strength</td>
<td>Clinical Use in Podiatry</td>
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</tr>
<tr>
<td>METRONIDAZOLE</td>
<td>Antibacterial</td>
<td>Oral Tablet, Suppository</td>
<td>Tab 200 mg 400 mg Suppos 500 mg 1 g Adults, 400 mg three times daily (during or after meals)</td>
<td>For the treatment of anaerobic infections associated with foot ulceration. Anaerobic infection is an infrequent clinical presentation. Given the clinical significance of anaerobic infection this medication would require conjunctive medical/hospital care.</td>
</tr>
<tr>
<td>PHENOXYMETHYL PENICILLIN</td>
<td>Antibacterial</td>
<td>Oral Tablet, Oral Liquid</td>
<td>Phenoxymethyl penicillin available 250mg Caps, 500mg Caps, oral liquid 125/s, 250/s</td>
<td>Acute foot infections caused by beta-haemolytic group A streptococcus is a common childhood disease. Phenoxymethyl penicillin remains the medicine of choice, as no resistance has been reported so far.</td>
</tr>
<tr>
<td>ROXITHROMYCIN</td>
<td>Antibacterial</td>
<td>Oral Tablet</td>
<td>150 mg every 12 hours &amp; 300 mg every 24 hours</td>
<td>Acute foot infections caused by beta-hemolytic group A streptococcal disease.</td>
</tr>
</tbody>
</table>
Clinical Indications For Requested Medications : Antifungal

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
<th>References of Clinical Efficacy</th>
</tr>
</thead>
</table>
Clinical Indications For Requested Medications: NSAIDs

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
<th>References of Clinical Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPROXEN</td>
<td>NSAIDs</td>
<td>Oral Tablet</td>
<td>250 mg 500 mg, long-acting 750 mg and 1000 mg</td>
<td>Soft tissue inflammation (tendonitis)joint inflammation, Soft tissue oedema</td>
<td>Practical classification for the use of nonsteroidal anti-inflammatory drugs. By Friedman SL, J Am Podiatr Med Assoc, 1996 Jun; Vol. 86 (6), pp. 263-5;</td>
</tr>
<tr>
<td>IBUPROFEN</td>
<td>NSAIDs</td>
<td>Oral Tablet, Oral Liquid Suspension</td>
<td>400 mg 600 mg long-acting 800 mg and 100mgs in 5mls Liquid</td>
<td>Higher dose required for soft tissue inflammation (plantar fasciitis, posterirot tibial tendonitis).</td>
<td>Plantar fasciitis: a prospective randomized clinical trial of the tension night splint Batt, M E; Tanji, J L; Skattum, N Department of Family Practice, University of California at Davis School of Medicine, Sacramento, USA</td>
</tr>
</tbody>
</table>
### Clinical Indications For Requested Medications : SAIDs

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
<th>References Of Clinical Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEXAMETHASONE SODIUM PHOSPHATE</td>
<td>Steroid</td>
<td>Injection</td>
<td>4 mg per ml, 1 ml &amp; 4 mg per ml, 2 ml</td>
<td>As a water soluble product when used by itself or in conjunction with local anaesthetic for the specific use in the effective treatment of plantar fasciitis (chronic heel spurs) and neuroma of the feet. This treatment, when combined with the appropriate adjunctive mechanical therapy significantly improves the efficacy of treatment</td>
<td>Treatment of Morton's neuroma, Journal Of The American Podiatric Medical Association, Volume 80, Issue 1, January 1990, Page 47 Imberman, N</td>
</tr>
<tr>
<td>METHYL-PREDNISOLONE</td>
<td>Steroid</td>
<td>Injection</td>
<td>METHYL-PREDNISOLONE Acetate 40 mg per ml, 1 ml METHYL-PREDNISOLONE Acetate with LIGNOCAINE 40 mg per ml with lignocaine 1 ml</td>
<td>Soft tissue inflammation; joint inflammation plantar fasciitis retrocalcaneal bursitis</td>
<td>Tendon pathology in the foot. The use of corticosteroid injection therapy. (eng; includes abstract) By Hayes DW Jr, Clin Podiatr Med Surg, 2000 Oct; Vol. 17 (4), pp. 723-35</td>
</tr>
</tbody>
</table>

Podiatrists Board Application for Extended Prescribing Authority
Page 36 of 125
### Clinical Indications For Requested Medications: Analgesics

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
<th>References Of Clinical Efficacy</th>
</tr>
</thead>
</table>

### Clinical Indications For Requested Medications: Anxiolytics/sedatives

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Class</th>
<th>Administration Route</th>
<th>Preparation Strength</th>
<th>Clinical Use in Podiatry</th>
<th>References Of Clinical Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAZEPAM</td>
<td>Anxiolytic Benzodiazapine</td>
<td>Oral Tablet</td>
<td>2mg, 5mg, 10mgs</td>
<td>Anti-anxiety medications prior to local injection of local anaesthetics for podiatric surgery. Prior to the infiltration of anaesthetic on the plantar surface of the foot in an anxious patient.</td>
<td>The Chemical Control of Preoperative Anxiety. Authors: Williams, James G. L.Jones, John R.Williams, Barbara in Psychophysiology; Jan75, Vol. 12 Issue 1, p46, ff</td>
</tr>
</tbody>
</table>
References


Non-physician providers continue to achieve enhanced stature, in part by gaining more autonomy in prescribing drugs. There is growing support for the concept that the public health is best served by the broadest access to primary care along with the safe use of pharmaceuticals. The states continue in their efforts to find ways to promote the use of less specialized and less costly providers to help serve the ever-growing population who have access to health care services.


BACKGROUND: About 15% of the population have fungal infections of the feet (tinea pedis or athlete’s foot). Whilst there are many clinical presentations of tinea pedis the most common are between the toes (interdigital) and on the soles, heels and sides of the foot (plantar) which is known as moccasin foot. Once acquired the infection can spread to other sites including the nails, which can be a source of re-infection. Oral therapy is usually used for chronic conditions or when topical treatment has failed.

OBJECTIVES: To assess the effects and costs of oral treatments for fungal infections of the skin of the foot (tinea pedis).

SEARCH STRATEGY: Randomised controlled trials were identified from MEDLINE, EMBASE and CINAHL from the beginning of these databases to January 2000. We also searched the Cochrane Controlled trials Register (Cochrane Library issue 1, 2000) the Science Citation Index, BIOSIS, CAB-Health, Health star and Economic databases. Bibliographies were searched, podiatry journals hand searched and the pharmaceutical industry and schools of podiatry contacted.

SELECTION CRITERIA: Randomised controlled trials including participants who have a clinically diagnosed tinea pedis, confirmed by microscopy and growth of dermatophytes in culture.

DATA COLLECTION AND ANALYSIS: Study selection was done by two independent reviewers. Methodological quality assessment and data collection was also assessed by two independent reviewers.

MAIN RESULTS: Twelve trials, involving 700 participants, were included. The two trials comparing terbinafine and griseofulvin produced a pooled risk difference of 52% (95% confidence intervals 33% to 71%) in favour of terbinafine’s ability to cure infection. No significant difference was detected between terbinafine and itraconazole; fluconazole and either itraconazole and ketoconazole; or between griseofulvin and ketoconazole, although the trials were generally small. Two trials showed that terbinafine and itraconazole were effective compared with placebo. Adverse effects were reported for all drugs, with gastrointestinal effects most commonly reported.

REVIEWERS’ CONCLUSIONS: The evidence suggests that terbinafine is more effective than griseofulvin and that terbinafine and itraconazole are more effective than no treatment.


Corticosteroids have been used extensively in the practice of orthopaedics and podiatry. It is the authors’ opinion that the issue of corticosteroids and their effect on the healing of tendon pathology has not been addressed sufficiently or answered adequately. Few studies have used a well-controlled injury model. Steroid dosage and steroid selection also appear to be random. Clinical experience in conjunction with a complete review of the literature, however, leads the authors to believe that the use of local corticosteroid injection is a valid treatment option. Local injection for painful tendon pathology is a relatively simple, safe, and effective form of treatment. The patient may experience rapid relief of pain and swelling and, on occasion, may be able to return to normal activities after one injection. With the exception of the Achilles’ tendon, it is the author’s opinion that the use of local corticosteroid injection for the treatment of tendinopathy is not only an option, but an effective means of therapy. Armed with a good understanding of tendon anatomy, proper injection technique, and differing types of corticosteroids, effective results are well within reach for the patient and physician. Unlike nonsteroidal anti-inflammatory drugs (NSAIDs) or oral corticosteroids, injectable corticosteroids deal with the problem at the site, delivering needed relief while eliminating adverse systemic effects. This therapy is cost effective and has fewer potential complications than operative intervention.

This article reviews the pharmacology, pharmacokinetics, adverse effects, drug interactions, and pedal and systemic indications of NSAIDs, oral hypoglycemics, and topical steroids. The integral involvement of these drugs in podiatric practice is also reviewed


The podiatric physician is faced with a multitude of non-steroidal anti-inflammatory drugs from which to choose. Podiatric physicians are overwhelmed with advertisements in the literature, outlining the safety and efficacy of one or another of these medications. This article categorizes the non-steroidal anti-inflammatory drugs to aid in their selection.


When surgery is planned, postoperative pain management requires careful consideration. Many medications and techniques can greatly reduce a patient's postsurgical discomfort, including nonsteroidal anti-inflammatory drugs, long-acting local anesthetics, corticosteroids, narcotics, ice, and compression. Pain management should begin preoperatively, continue through surgery, and be fully managed postoperatively. Successful management of postoperative pain greatly affects patients' overall impressions of their surgery.


A survey of 2,000 outpatients at the clinic of the Dr. William M. Scholl College of Podiatric Medicine was conducted analysing both medications reported by the patients at the time of treatment and drugs by the attending podiatrist. The major groups of medications already used by the patients included diuretics, vitamins and minerals, non-steroidal anti-inflammatory drugs, cardiovascular medications, insulin and oral hypoglycemics, estrogen and thyroid hormone replacement, and antibiotics. Patients with asthma, ulcers, epilepsy, affective disorders and Parkinsonism represented significant subgroups. The major drugs used by podiatrists in the outpatient clinic included analgesics and anti-inflammatory agents, local anaesthetics, antibiotics, sedative-hypnotics, and a variety of topical agents. These two sources of medication serve as the basis for a review of drug interactions in the podiatric outpatient population. In addition, precautions for the use of drugs commonly administered by podiatrists are reviewed.

8. Valdecoxib. (Eng; includes abstract) By Ormrod D, Drugs, 2002; Vol. 62 (14), pp. 2059-71; discussion 2072-3; PMID: 12269850;

In ten large, well-controlled, randomised trials (n = 203 to 1089), valdecoxib, a selective inhibitor of cyclooxygenase-2, was significantly more effective than placebo in the treatment of osteo-arthritis, rheumatoid arthritis and pain associated with primary dysmenorrhea, and for post-surgical analgesia. Valdecoxib 1.25 to 10mg twice daily and valdecoxib 10mg once daily were more effective than placebo for the relief of pain in patients with osteo-arthritis of the knee, and doses above 5mg twice daily were similar in efficacy to naproxen 500mg twice daily. Similarly, valdecoxib 5 and 10 mg/day were as effective for osteo-arthritis of the hip as naproxen 500mg twice daily. In patients with rheumatoid arthritis, valdecoxib 10, 20 or 40 mg/day was significantly more effective than placebo, and similar in efficacy to naproxen 500mg twice daily; there were no significant differences in efficacy between the three dosages of valdecoxib. Valdecoxib 20 or 40mg administered 1 to 3 hours before and 12, 24 and 36 hours after hip arthroplasty provided significantly better analgesia than placebo, and significantly reduced the amount of morphine taken by patients. Single doses of valdecoxib 10 to 80mg administered before foot or oral surgery provided significantly better analgesia than placebo; when administered after oral surgery, valdecoxib 20 or 40mg provided greater sustained analgesia than oxycodone 10mg/paracetamol 1000mg or rofecoxib 50mg. In contrast to three nonselective nonsteroidal anti-inflammatory drugs (NSAIDs), valdecoxib 40mg twice daily did not cause significant changes in platelet function and bleeding times. Chronic users of NSAIDs who were switched to valdecoxib 10 or 20 mg/day for 12 weeks experienced significantly fewer gastroduodenal erosions or ulcers than patients receiving ibuprofen 2400 mg/day or diclofenac 150 mg/day for 12 weeks. Valdecoxib was generally well tolerated in clinical trials, with a similar incidence of adverse events to placebo.

Foot infections in diabetic patients are predominantly caused by gram-positive cocci, many of which are now antibiotic resistant. Because linezolid is active against these pathogens, we compared the efficacy and safety of intravenous and oral formulations with that of intravenous ampicillin-sulbactam and intravenous and oral amoxicillin-clavulanate given for 7-28 days in a randomized, open-label, multi-centre study of all types of foot infection in diabetic patients (ratio of linezolid to comparator drug recipients, 2:1). Among 371 patients, the clinical cure rates associated with linezolid and the comparators were statistically equivalent overall (81% vs. 71%, respectively) but were significantly higher for linezolid-treated patients with infected foot ulcers (81% vs. 68%; P=.018) and for patients without osteomyelitis (87% vs. 72%; P=.003). Cure rates were comparable for inpatients and outpatients and for both oral and intravenous formulations. Drug-related adverse events were significantly more common in the linezolid group, but they were generally mild and reversible. Linezolid was at least as effective as aminopenicillin/beta-lactamase inhibitors for treating foot infections in diabetic patients.

Topical metronidazole for arterial insufficiency ulcers. Kaplan, B; Gibson, L B, Jr Department of Clinical Podiatry, School of Pharmacy, Robert C. Byrd Health Sciences Center, West Virginia University, Charleston Division 25304, USA

The use of topical metronidazole has been limited to the treatment of acne rosacea, infected foot ulcers associated with diabetes mellitus, varicose veins, postirradiation ulcers, and dental conditions since the Food and Drug Administration approved the drug in 1988. Because of this agent's apparent effectiveness in treating anaerobic bacterial infections in such ulcers, the authors believed that treatment of arterial insufficiency ulcers with a solution of topical metronidazole would be a rational approach. They describe a 30-year-old man in whom bilateral lower extremity cellulitis developed as a result of arterial insufficiency. The patient's ulcers were unresponsive to intravenously administered antibiotics and whirlpool therapy. However, when a topical solution of metronidazole was administered, the ulcers began to heal and epithelialization at the ulcer sites occurred. The authors review others' studies concerning clinical use of topical metronidazole and suggest that further study is warranted. To the authors' knowledge, topical metronidazole solution for the treatment of arterial insufficiency and venous stasis ulcers has not been previously reported. [Journal Article; In English; United States]

Penetration of ciprofloxacin into the interstitial space of inflamed foot lesions in non-insulin-dependent diabetes mellitus patients. Müller, M; Brunner, M; Hollenstein, U; Joukhadar, C; Schmid, R; Minar, E; Ehringer, H; Eichler, H G. Departments of Clinical Pharmacology, University of Vienna Medical School, Vienna, Austria; e-mail markus.mueller@univie.ac.at

Interstitial ciprofloxacin concentrations were measured by microdialysis in inflamed foot lesions of non-insulin-dependent diabetes mellitus patients following intravenous administration of 0.2 g of ciprofloxacin. Intersitial ciprofloxacin concentrations were significantly lower than corresponding serum concentrations. There was no significant difference in the penetration of ciprofloxacin into inflamed and unaffected tissue (area under the concentration-time curve(infection)/area under the concentration-time curve(unaffectted tissue) = 0.99 +/- 0.15 [mean +/- standard error, n = 6]. Thus, inflammation appears to have little or no effect on the penetration of ciprofloxacin into tissue. [Clinical Trial, Journal Article; In English; United States]

Targeting lurking pathogens in acute traumatic and chronic wounds. Eron, L J. Internal Medicine Department, Kauai Medical Clinic, Lihue, Hawaii 96766-1098, USA

The appropriate antimicrobial treatment for skin and soft tissue following acute trauma is determined by the mechanism of injury, time from injury to treatment, environmental wound contamination, pathogenicity of colonizing bacteria, and patient-specific issues. These factors can be used to predict the risk of secondary infection of wounds. Although common skin pathogens (such as Staphylococcus aureus and group A Streptococcus) cause most secondary wound infections, antibiotic therapy sometimes must be directed against unusual pathogens that are associated with atypical wounds, such as animal bites (amoxicillin with clavulanate for Pasteurella multocida) and plantar puncture wounds (ciprofloxacin for Pseudomonas aeruginosa). This customized treatment approach is also appropriate for chronic wounds, such as pressure and diabetic foot ulcers. In addition to antibiotic therapy, wound management may include surgical debridement. Active areas of investigation in wound management include the use of growth factors and hyperbaric oxygen. [Journal Article, Review, Review, Tutorial; 35 Refs; In English; United States]

Plantar fasciitis: a prospective randomized clinical trial of the tension night splint Batt, M E; Tanji, J L; Skattum, N. Department of Family Practice, University of California at Davis School of Medicine, Sacramento, USA

OBJECTIVE: The objective of this study was to evaluate the efficacy of a tension night splint (TNS) as part of a treatment regimen for the management of plantar fasciitis.

DESIGN: The design was a randomized clinical trial.
SETTING: The setting was a university-based primary care sports medicine clinic in California.

PATIENTS: Forty patients with plantar fasciitis entered the study (age range, 20-74 years; average age, 45.7 years). Excluded from the study were patients with other concomitant ankle or foot pathology. Thirty-two patients (21 women, 11 men) completed the study with 33 treated feet.

INTERVENTION: The patients were randomized to one of two treatment groups. The control group (n = 17) received standard treatment of antiinflammatory medication (ibuprofen), a Viscoheel soft spot heel cushion (Bauerfeind USA, Kennesaw, GA, U.S.A.) and a stretching programme for the gastrocnemius and soleus muscles. The tension night split group (n = 16) received the same standard treatment protocol and additionally an office manufactured custom fitted posterior splint to be used at night. Those patients in the control group not responding to treatment after 8-12 weeks were crossed over to the tension night splint group. Patients were reviewed every 4 weeks for symptom assessment and compliance.

MAIN OUTCOME MEASURES: The main outcome measures were subjective assessment of pain (Visual analogue scale), plantar fascial tenderness, and ankle range of motion. Patients were discharged from either arm of the trial when they had resumed normal activities with minimal or no discomfort. This end point was recorded as weeks to cure.

MAIN RESULTS: There was no significant difference in the demographics of the two groups (p > 0.05). In the control group, 6 of 17 were cured after an average interval of 8.8 weeks. The remaining 11 of 17 control group patients were crossed over to receive a TNS in addition to control modalities. Following cross over 8 of 11 of this group were cured after an average of 13 weeks. Three of the 11 failed to significantly respond. Of the 15 patients (16 feet) originally randomly assigned to the TNS group 16 of 16 were cured with an average treatment time of 12.5 weeks. The TNS treatment protocol was a significantly more efficacious treatment regime (p < 0.05). Thus, of 33 cases of plantar fasciitis treated in this study three failed treatment.

CONCLUSION: When used in combination with a visco-elastic heel pad, stretching programme and nonsteroidal anti-inflammatory drugs, the TNS is an effective treatment of plantar fasciitis. [Clinical Trial, Journal Article, Randomized Controlled Trial; In English; United States]

14. Treatment of bacterial skin and skin structure infections. Guay, David R P; College of Pharmacy, University of Minnesota, Weaver-Densford Hall 7-115C, 308 Harvard Street SE, Minneapolis, MN 55455, USA; e-mail guayx001@umn.edu

Bacterial skin and skin structure infections (SSSIs) are among the most frequently seen infectious entities in the community setting and occasionally in the institutional setting. A wide variety of SSSIs exist, with cellulitis, impetigo and folliculitis being the most common. Most SSSIs are caused by aerobic staphylococci and streptococci, with aerobic Gram-negative bacilli and anaerobes being involved in more complicated infections. Systemic therapy with a variety of beta-lactams, macrolides and lincosamides (clindamycin) have been the cornerstone of SSSI therapy for many years. With the exception of mupirocin, topical therapy occupies a small therapeutic niche. Despite the emergence of antimicrobial resistance among the pathogens most commonly associated with SSSIs (for example, Streptococcus pyogenes and macrolides; Staphylococcus aureus and methicillin, vancomycin, penicillin and mupirocin), few treatment failures have been reported. The newest antimicrobials reviewed herein (linezolid, quinupristin/dalfopristin, gatifloxacin, gemifloxacin and moxifloxacin) are not a significant improvement upon older agents in the treatment of SSSIs. Perhaps this assessment will change if the penetrance of the antimicrobial resistance patterns described above reach a critical threshold and clinical failures become more widespread.

15. Outpatient management of uncomplicated lower-extremity infections in diabetic patients. Lipsky, B A; Pecoraro, R E; Larson, S A; Hanley, M E; Ahroni, J H; Division of General Internal Medicine, University of Washington School of Medicine, Seattle

Most diabetic foot infections are believed to be caused by both aerobic and anaerobic bacteria and to require hospitalization and parenteral antimicrobial therapy. We prospectively evaluated diabetic patients with non-limb-threatening lower-extremity infections not yet treated with antibiotics. The patients were randomized to outpatient treatment with oral clindamycin hydrochloride or cephalexin for 2 weeks and evaluated every 3 to 7 days. In 56 assessable patients, curettage yielded a mean of 2.1 microorganisms. Aerobic gram-positive cocci were isolated in 50 cases (89%), and were the sole pathogen in 21 (42%) of these. Aerobic gram-negative bacilli and anaerobes were isolated in 20 (36%) and 7 (13%) cases, respectively, and almost always in polymicrobial infections. Fifty-one infections (91%) were eradicated, 42 (75%) after 2 weeks of treatment; only 5 (9%) were initially treatment failures, and 3 (5%) were subsequently cured with further outpatient oral antibiotic treatment. After a mean follow-up of 15 months, no further treatment was required in 43 (84%) of the cured patients. Previously untreated lower-extremity infections in diabetic patients are usually caused by aerobic gram-positive cocci, and generally respond well to outpatient management with oral antibiotic therapy. [Clinical Trial, Journal Article, Randomized Controlled Trial; In English; United States]
16. Role of antibiotic therapy in diabetic foot management. [Place de l'antibiothérapie dans le traitement du pied diabétique] Hartemann-Heurtier, A; Marty, L; Ha Van, G; Grimaldi, A Service de Diabétologie (Prof. Thervet), Hôpital de la Pitié-Salpêtrière, 47-83 bd de l’Hôpital, 75013 Paris

Antibiotic therapy is not the most important component in diabetic foot ulcer management which should be based on weight bearing avoidance and arterial revascularization. However antibiotic therapy is necessary in presence of extensive deep involvement or systemic signs of infection. Initial antimicrobial treatment depends on bacteria supposed origin. For patients not coming from hospital, the initial choice antibiotic is an amoxicillin/clavulanate agent because it offers optimal coverage for most pathogens involved in those diabetic foot lesions (gram positive cocci, gram negative and anaerobic organisms). For patients at high risk to be infected with nosocomially acquired pathogens, the initial antibiotic therapy must cover methicillin-resistant staphylococci, resistant pseudomonas aeruginosa or enterobacteriae. In all cases, when definitive reliable cultures are reported, initial antibiotic regimens should be revised to narrow the coverage to specific pathogens. In presence of osteomyelitis, a temporary combination of two agents which are known to reach high bone concentrations is necessary, and antibiotic therapy should be continued for at least two months. In other cases, antibiotic treatment duration depends on clinical outcome. [Journal Article, Review, Review, Tutorial; 28 Refs; In French; France]

17. Management of cutaneous erythrasma. Holdiness, Mack R; Department of Internal Medicine, Lakeside Hospital, Metairie, Louisiana 70001, USA; MHold1540@cs.com

Corynebacterium minutissimum is the bacteria that leads to cutaneous eruptions of erythrasma and is the most common cause of interdigital foot infections. It is found mostly in occluded intertriginous areas such as the axillae, inframammary areas, interspaces of the toes, intergluteal and crural folds, and is more common in individuals with diabetes mellitus than other clinical patients. This organism can be isolated from a cutaneous site along with a concurrent dermatophyte or Candida albicans infection. The differential diagnosis of erythrasma includes psoriasis, dermatophytosis, candidiasis and intertrigo, and methods for differentiating include Wood's light examination and bacterial and mycological cultures. Erythromycin 250mg four times daily for 14 days is the treatment of choice and other antibacterials include tetracycline and chloramphenicol; however, the use of chloramphenicol is limited by bone marrow suppression potentially leading to neutropenia, agranulocytosis and aplastic anaemia. Further studies are needed but clarithromycin may be an additional drug for use in the future. Where there is therapeutic failure or intertriginous involvement, topical solutions such as clindamycin, Whitfield's ointment, sodium fusidate ointment and antibacterial soaps may be required for both treatment and prophylaxis. Limited studies on the efficacy of these medications exist, however, systemic erythromycin demonstrates cure rates as high as 100%. Compared with tetracyclines, systemic erythromycin has greater efficacy in patients with involvement of the axillae and groin, and similar efficacy for interdigital infections. Whitfield's ointment has equal efficacy to systemic erythromycin in the axillae and groin, but shows greater efficacy in the interdigital areas and is comparable with 2% sodium fusidate ointment for treatment of all areas. Adverse drug effects and potential drug interactions need to be considered. No cost-effectiveness data are available but there are limited data on cost-related treatment issues. A guideline is proposed for the detection, evaluation, treatment and prophylaxis of this cutaneous eruption. [Journal Article, Review, Review, Tutorial; 41 Refs; In English; New Zealand]

18. Management of extravasation injuries. Kumar, R J; Pegg, S P; Kimble, R M Burns Unit, Royal Clinic Children's Hospital, Brisbane, Queensland, Australia

BACKGROUND: Various agents have been implicated in causing tissue necrosis after intravenous infusions have extravasated. These include solutions of calcium, potassium, bicarbonate, hypertonic dextrose, cytotoxic drugs and antibiotics. Views on management of these injuries differ, and range from a non-operative conservative approach to early debridement and grafting.

METHODS: A retrospective review was undertaken of the hospital files of patients with extravasation injuries seen in three Australian hospitals. Nine patients were identified, and their management and long-term follow up are reported.

RESULTS: Age ranged from 17 days to 60 years. Two patients received their injuries from solutions containing isotonic dextrose/saline. The other seven patients received injuries from a variety of solutions including calcium gluconate (n = 1), parenteral nutrition (n = 1), sodium bicarbonate (n = 1), immunoglobulin (n = 1), gentamicin and penicillin (n = 1), fluocoxacillin (n = 1), and the chemotherapeutic agents epirubicin and cyclophosphamide (n = 1). The sites involved included the dorsum of the right foot (n = 3), the dorsum of the left foot (n = 3), the right groin (n = 1), the right hand (n = 1) and the left hand (n = 1). Four patients were managed by delayed debridement and split skin grafting, while five were treated non-operatively. Prolonged scar management was necessary in seven of the nine patients. Final results were satisfactory in all patients who received skin grafting and in all patients who were managed conservatively.

CONCLUSIONS: Management of extravasation injuries should be conservative if possible. Delayed debridement and split skin grafting is required if the area of skin loss is extensive. Scar management remains a problem. Prevention of these injuries with the education of both medical and nursing staff remains the ultimate aim. [Journal Article, Review, Review, Multicase; 19 Refs; In English; Australia]
APPENDIX D – COURSE PRESCRIPTIONS

CONTENTS

Introduction and Outline.................................................................43
Training in Pharmacology for Graduates and Undergraduates..........55
Bachelor of Health Science.............................................................56
Postgraduate Diploma in Health Science........................................61

Introduction and Outline

[Note: Part of this APPENDIX is intended to become a stand alone document, after suitable editing, so may repeat some of the material elsewhere.]

Background

1. Podiatry is an established profession. The inaugural meeting of the Chiropodists Board was held on 4 April 1968. Since then, podiatrists have developed and extended clinical specialist roles which have improved the quality of care and have improved access to services for patients. In podiatry, improved access to specialist intervention leads to an improved outcome for patients. In primary care, podiatrists are working in teams with GPs, nurses and other professionals to provide quick and effective care for patients which in turn have demonstrated a reduction in referral rates to some specialties in secondary care. Extended prescribing authority provides an effective mechanism to further develop initiatives to improve patient care within formal legislative boundaries.

2. Podiatrists are well placed to further extend their professional responsibilities with extended prescribing authority arrangements. However, before being licensed by the Board to do so, they have to successfully complete an approved course of training approved by the Board.

3. Extended prescribing has at its basis the need to organise and deliver services around the needs of patients, their families and carers.

4. The podiatric prescriber would be responsible for the assessment of patients with undiagnosed conditions of the foot and lower limb, and for decisions about the clinical management required, including the prescribing of appropriate medicines.

5. The podiatric prescriber would be responsible for the continuing care of patients who have been clinically assessed by them. This continuing care might include the prescribing of medicines (which would usually be informed by clinical guidelines and be consistent with individual treatment plans) or continuing established treatments by issuing repeat prescriptions, with the authority to adjust the dose or dosage form according to the patients' needs.
Aims of Extended Podiatric Prescribing

6. Extended podiatric prescribing is intended to provide patients with quicker and more efficient access to medicines, and to make the best use of the skills of highly qualified podiatric health professionals. It will be used when there is a clear benefit to the patient.

7. Over time, extended prescribing authority for podiatrists is also likely to reduce doctors’ workloads, freeing up their time to concentrate on patients with more complicated conditions, and involving more complex treatments.

Principles of the Curriculum

8. In devising a suitable curriculum for the training of Podiatric Prescribers, the following principles must underpin any and all programmes approved by the Board.

8.1 Patient safety is paramount.

8.2 The programme will teach participants the general principles of prescribing and how to apply these principles safely within their relevant scope of practice.

8.3 The competency frameworks for prescribing developed by the Board show the core competences needed by Podiatrists and are taught at undergraduate level.

8.4 There is normally no automatic entitlement to exemption from any part of the programme although the approved Education Provider may use established mechanisms for considering exemption from parts of the programme. However students must satisfy all assessment requirements.

8.5 The training programme is at post – graduate and post – registration level. The baseline for the programme is judged to be at a level to develop safe prescribers working within the legal framework. If offered at Post Graduate Diploma (or equivalent) level the course will still need to be able to attain the minima required for undergraduate level.

8.6 The theoretical and the learning in practice components of the training programme are tailored in content and duration to deliver standards of knowledge and practice against each element of the Curriculum Framework that will allow safe practice.

8.7 Programmes will include sufficient emphasis on clinical decision making, including a decision not to prescribe.

Current Knowledge Base and Professional Context

9. The relevant knowledge and expertise of podiatrists entering a training programme will depend on the nature of their practice and the length of their experience. The design and delivery of programmes will take account of the participant’s range of background expertise, experience and skills and will be expected to confirm their competence in prescribing through appropriate assessments.

10. In the 1970s, exemptions to the Medicines Act enabled podiatrists to obtain and administer local analgesics in the course of their professional practice.

13 In this APPENDIX the AUT.
11. Separately certificated courses and examinations for administering local analgesics are included in the current undergraduate podiatry programme. Postgraduate courses are also available for practitioners to update or gain these qualifications, where such was not a part of their original training.

12. All courses contain elements of general and specific pharmacology and include pharmacokinetics; pharmacodynamics; adverse drug reactions and drug interactions; drug dependency and abuse; and a knowledge of the law.

13. Registered Podiatrists with the above certified training, will be obliged to undertake periodic continuing professional development in both local anaesthesia and Pharmacology for Podiatrists.

Pre-Registration Courses

14. As part of their pre-registration course podiatrists are required to have a thorough and detailed knowledge and understanding of the pharmacology of medicines commonly encountered within practice.

15. Also as part of their pre-registration course podiatrists are required to have a thorough and detailed knowledge and understanding of the pharmacology of medicines commonly used in the relief of symptoms commonly encountered within the podiatric setting.

16. As part of their pre-registration course all podiatrists are required to have the following.

(a) Significant subjective assessment and interviewing skills and be used to applying these in a range of settings.

(b) Well developed objective assessment and handling skills and have applied these in a range of settings and with a variety of different pathologies.

(c) Good clinical reasoning skills and applied these in a range of settings.

(d) Good decision making skills related to a range of clinical settings.

(e) An understanding of pathologies of a range of conditions.

(f) Good reflective practice skills both theoretical and applied. Podiatry courses use reflective practice as a learning tool across all levels.

(g) Experience of critically evaluating literature. This skill is developed across all levels but podiatrists may demonstrate differing levels of ability particularly where they have come from a diploma background.

(h) A knowledge of pharmacology relating to a wide range of medicines. This may relate purely to drug management or it may be more applied to show the interrelationship between drug therapy and podiatric intervention.

Postgraduate level

17. At a postgraduate level some podiatrists will have experiential knowledge of a range of medicines related to their area of expertise.
Professional Codes of Ethics and Standards

18. The Board is the regulatory body for podiatrists, and has produced the following standards which cover the practice of podiatrists:

- Standards of Conduct, Performance and Ethics
- Standards of Education & Training
- Standards of Proficiency

Registration and Continuing Professional Development

19. In order to practice podiatrists must be registered with the Board under the HPCAA.

20. If the Board authorises a podiatrist to practice with extended prescribing authority (Podiatric Prescriber), that podiatrist must have successfully completed a programme of study approved by the Board and hold the appropriate Scope of Practice.

21. In order to continue to hold the prescribing Scope of Practice, prescribers will have to demonstrate that they continue to meet the requirements of the Re-Certification Framework published by the Board.

Course Entry Requirements

22. All entrants to the post-graduate programme(s) must be:

- registered with the Board; **and**
- be professionally practicing in New Zealand; **and**
- satisfy the programme provider that they have appropriate background knowledge, experience and qualifications to cope with the course at the appropriate level.

Aim and Objective of The Programme

23. The aim of the programme is to develop the knowledge and skills required by a podiatrist to practice as a safe Podiatric Prescriber so as to meet the standard required for registration by the Board.

24. The programme objective is to produce Podiatric Prescribers who will be able to demonstrate they can prescribe safely, effectively and competently.

Learning Outcomes

25. By the end of the programme participants will be able to:

(a) demonstrate effective partnership working as Podiatric Prescribers with patient(s) and the wider care team.

(b) develop and document a clinical management plan (CMP) within the context of a prescribing partnership;
(c) demonstrate effective consultation/assessment skills including the following:

i. Ability to communicate effectively with patients and carers.

ii. Ability to conduct a relevant physical assessment/examination of patients with those conditions for which they may prescribe.

iii. The process of effective clinical decision-making.

iv. How to assess a patient’s needs for medicines, taking account of their wishes, values, ethnicity and the choices they may wish to make in their treatment.

(d) Understand the way medicines work in relation to the disease process (pharmacodynamics and pharmacokinetics).

(e) Demonstrate the ability to monitor response to medicines and modify treatment or refer the patient as appropriate.

(f) Identify sources of information, advice and decision support, eg podiatry in primary care settings, and explain how they will use them in prescribing practice taking into account evidence based practice and national / local guidelines.

(g) Recognise, evaluate and respond to influences on prescribing practice at individual, local and national levels.

(h) Demonstrate an understanding of the legal and professional framework for accountability and responsibility in relation to supplementary prescribing and demonstrate how the law relates to supplementary prescribing practice.

(i) Demonstrate a reflective approach to continuing professional development of prescribing practice.

(j) Demonstrate an understanding of the importance of record keeping in the context of medicines management including:

i. accurate recording in patients’ notes.

ii. the reporting of near misses.

iii. adverse reactions.

iv. ability to access the clinical management plan (CMP).

Programme Content

26. The following areas of work will all be addressed to meet the learning outcomes for this programme of study.

26.1 Consultation and Decision-Making

(a) When and how to apply the range of models of consultation.

(b) Strategies to develop accurate and effective communication and consultation with professionals, patients and their carers.
(c) How to build and maintain an effective relationship with patients and carers taking into account their values and beliefs.

(d) Partnership working with the patient including the concordant approach and the importance of explaining why medication has been prescribed, side effects and other relevant information to enable patient choice.

(e) How to develop and document a CMP including referral to other professionals.

(f) How to apply the principles of diagnosis and the concept of a working diagnosis.

(g) How to make an adequate assessment of the patient’s condition, based on history and clinical signs.

(h) How to recognise and work within the limits of personal professional competence.

(i) How to take suitable and prompt action when necessary.

(j) Knowing how to prescribe only the treatment, or medicines that serve the patient’s needs.

(k) When to refer a patient to another practitioner.

(l) How to keep clear, accurate and up to date records.

26.2 The Psychology of Prescribing and Influencing Factors

(a) Strategy for managing patient demand; – patient demand versus patient need, the partnership in medicine taking, the patient choice agenda and an awareness of cultural and ethnic needs.

(b) The external influences, at individual, local and national levels.

(c) Personal attitudes and their influences on prescribing practice.

26.3 Prescribing in a Team Context

(a) The role and functions of other team members.

(b) The professional relationship between prescribers and those responsible for dispensing.

(c) The responsibility of the Podiatric Prescriber in the development and the delivery of the CMP.

(d) The importance of communicating prescribing decisions within the team.

(e) Interpretation of documentation including medical records, clinical notes and electronic health records.

(f) How to manage the interface between multiple prescribers, and recognise the potential conflict and how that might be managed.

(g) An overview of prescribing budgets.

26.4 General Principles and Application of Pharmacology and Therapeutics.

(a) Principles of pharmacokinetics and drug handling – absorption, distribution, metabolism and excretion of drugs.

(b) Pharmacodynamics.
(c) Changes in physiology and drug response, for example in the older person, young people, the effect of pregnancy and on women who are breast-feeding and the issues raised by ethnic origin.

(d) Adverse drug reactions, interactions with drugs (including over-the-counter (OTC) products, prescription-only medicines (POMs), Complementary Medicines) and interactions with other diseases.

(e) Impact of co-morbidity and other treatments on prescribing and patient management.

(f) Selection of drug regimen.

26.5 Principles and methods of patient monitoring

(a) Methods for monitoring the patient including interpretation and responding to patient reporting, physical examinations and laboratory investigations.

(b) Relevant physical examination skills.

(c) Assessing responses to treatment against the objectives of the clinical management plan.

(d) Working knowledge of any monitoring equipment used within the context of the clinical management plan.

(e) Identifying and reporting adverse drug reactions.

26.6 Evidence-based Practice and Clinical Governance in relation to Extended Prescribing Authority

(a) Principles of evidence-based prescribing.

(b) Knowledge of national and local guidelines, protocols, policies, decision support systems and formularies – including rationale for, adherence to and deviation from such guidance.

(c) Reflective practice and continuing professional development.

(d) Auditing, monitoring and evaluating prescribing systems and practice including the use of outcome measures.

(e) Risk assessment and risk management.

(f) Analysis and learning from medication errors and near misses.

26.7 Legal, Policy, Professional and Ethical Aspects

(a) Policy context for prescribing.

(b) Professional judgement in the context of NZ Podiatry Board standards of Conduct, Performance and Ethics.

(c) Legal Basis for prescribing, supply and administration of medicines.

(d) Legal and regulatory aspects of controlled drugs and the practical application of these.

(e) Legal implications of advice to self medicate including the use of complementary therapy and OTC medicines.

(f) Medicines regulatory framework including Marketing Authorisation, the use of unlicensed medicines and “off-label” use.

(g) Application of the law in practice, professional judgement, liability and indemnity.
(h) Maintenance of professional knowledge and competence in relation to the conditions for which the allied health professional may prescribe.

(i) Individual accountability and responsibility as a prescriber.

(j) Issues relating to consent.

(k) Writing prescriptions in a range of settings.

(l) Prescription pad security and procedures when pads are lost or stolen.

(m) Record keeping, documentation and professional responsibility.

(n) Confidentiality, and Data Protection.

(o) IT developments and their impact on prescribing including electronic patient records, e-prescribing.

(p) Suspicion, awareness and reporting of fraud or criminal behaviour, knowledge of reporting and ‘whistle blowing’ procedures.

26.8 Prescribing in the Public Health Context

(a) Duty to patients and society.

(b) Public health issues and policies, particularly the use of antimicrobials and resistance to them.

(c) Inappropriate prescribing, over and under-prescribing.

(d) Inappropriate use of medicines including misuse, under and over-use.

Teaching, Learning and Support Strategies

27. Teaching and learning strategies are designed to allow students to demonstrate that they are familiar with the clinical conditions for which they may prescribe and their treatment, e.g. through the use of case presentations, seminars, tutorials etc. They will also demonstrate how theory underpins practice. Teaching and learning strategies recognise:

27.1 The background knowledge and experience of podiatrists in aspects of medicines relevant to their Scope of Practice, working with patients and the law relating to practice, recognising that these will vary between individuals / professional groups.

27.2 The requirement for a podiatrist to become familiar with the specified conditions for which they may prescribe and that some individual directed study may be necessary to achieve this.

27.3 The value added to learning by the need for additional self-directed study, group work and multi-disciplinary learning experiences with other trainee prescribers to ensure they have an appropriate level of knowledge commensurate with their prescribing responsibilities.

27.4 The value of case studies and significant event analysis in the learning process.

27.5 The need to encourage development of critical thinking skills and reflective practice and the means to accessing appropriate CPD and maintenance of CPD records – such as maintaining a CPD portfolio.
27.6 The period of Learning in Practice should ensure that each podiatrist can demonstrate:

(a) competence in the relevant physical examination of patients with those conditions for which they may prescribe;
(b) ability to monitor and assess the responses of patients to treatment against the objectives in the clinical management plan and ability to make relevant changes to medication within the parameters detailed within the CMP;
(c) appropriate clinical decision-making;
(d) effective communication with the patient, the Independent Prescriber and the wider care team;
(e) appropriate record-keeping;
(f) ability to document their learning as a Prescriber.

27.7 The Education Provider (AUT) will support the practitioner with a suitable framework (competence framework) to assess Learning in Practice

**Assessment Strategies**

28. The assessment requirements will be made explicit, in particular the criteria for pass/fail and the details of the marking scheme.

29. Assessment strategy will ensure that all the learning outcomes for the prescribing programme are able to be tested, both theory and practice.

30. The learning outcomes will be assessed by a combination of methods to test knowledge, skills and a reflective approach to learning.

31. Completion of the programme and confirmation of an award must be conditional on satisfactory completion of the course.

32. Assessment strategies will be designed to confirm that the Podiatrist is a safe and effective prescriber and that a major failure to identify a serious problem or an answer that would cause a patient harm should result in overall failure.

**Academic and Clinical Hours**

33. The programme will contain a range of delivery methods and will normally competed in a defined period of time. In finalising programme requirements for the curriculum, the following factors will be taken into account:

33.1 The views of the Education Provider on a realistic programme to deliver the curriculum normally within a specified time frame to achieve the required learning outcomes.

33.2 The compatibility of programmes with other allied health professionals from other disciplines which may provide the opportunity to consider shared learning experiences.

33.3 The programme for podiatric health professionals should contain elements of additional directed private study on the defined conditions and medicines for which they will be expected to prescribe treatments.

33.4 The following table from AUT sets out the number of hours spent on each paper.
<table>
<thead>
<tr>
<th>Name of Paper</th>
<th>Section of the paper where clinical pharmacology principles are applied in the podiatry context</th>
<th>Pharmacology Theory (Hours of Instruction / and Directed Learning)</th>
<th>Podiatry and Pharmacology Practice (Hours of practical instruction / clinical supervision)</th>
<th>Assessment Points.</th>
<th>Lecturer / Clinical Supervisor</th>
</tr>
</thead>
</table>
| Podiatry Clinical Practice I  | Semester II Year I, undergraduate paper participation in clinical treatment of patients. Examination and history taking of medications in general health context. Clinical practice in Podiatry Clinic and North Shore Hospital Podiatry Rounds. | 10 hours                                                      | 30 hours.                                                                         | Written assignment exploring context of clinical practice.                                                                    | Greg Coyle  
Head of Podiatry  
Auckland University of Technology  
Martin Kane  
Lecturer  
Auckland University of Technology |
| Podiatry Clinical Practice II | Semester II and III undergraduate paper developing clinical diagnostic and therapeutic skills, demonstrate competence in use of local anaesthetic, prescribing OTC’s, understanding prescription and dispensing. | 20 hours                                                      | 74 hours.                                                                         | Practical Skills Assessments.  
Written assignment exploring context of clinical practice.                                                                    | Dr. Daniel Poratt  
Podiatrist  
Senior Lecturer  
Auckland University of Technology |
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Duration</th>
<th>Requirements</th>
<th>Assessments</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podiatry Clinical Practice III</td>
<td>Integration of all prior learning to provide a high level of diagnosis and treatment of ailments and abnormal conditions of the human foot using medical, surgical and pharmacological methods. The paper includes clinical management of people with systemic disease, high-risk patients, paediatric conditions, sports injuries, disability and special needs groups, through patient management at clinical placements. On completion of this paper students will assume a high level of responsibility and be capable of independent decision making.</td>
<td>20 hours</td>
<td>112 hours Hospital Wards Placement, 112 hours Primary Health Organisations (eg Waiapera Trust, North Harbour PHO), 224 hours clinic placement, 42 hours operating theatre placement</td>
<td>Written examination, Practical Skills Assessments</td>
<td>Prof Paul Bennett Auckland University of Technology, Dr. Wally Tongue Specialist Physician, Dr. Daniel Poratt, Podiatrist Senior Lecturer Auckland University of Technology</td>
</tr>
<tr>
<td>Pharmacology for Health Professionals</td>
<td>Semester II, undergraduate paper, developing knowledge in pathophysiological change, understanding pharmacokinetics and pharmacodynamics, interactions, drug monitoring, drug abuse.</td>
<td>86 hours</td>
<td>120 hours</td>
<td>Written assignment, Drug Case Presentations</td>
<td>Gael Mearns Pharmacist Senior Lecturer Auckland University of Technology</td>
</tr>
</tbody>
</table>
References


4. National Prescribing Centre (2003), Supplementary prescribing A resource to help healthcare professionals to understand the framework and opportunities, Liverpool, NPC. http://www.npc.co.uk


Training in Pharmacology for Graduates and Undergraduates

1. The undergraduate Pharmacology Modules in the Bachelor of Health Science (Podiatry) together with (new) Postgraduate Diploma in Health Science, have been designed to meet the growing demands and expectations of the general public, the podiatry profession and their medical colleagues. The Postgraduate Diploma in Health Science provides the appropriate extended training for those Podiatrists who may be licensed for prescribing rights.

2. The combined undergraduate and postgraduate programmes equip graduates with the knowledge and skills necessary to allow them to be safe and competent prescribers.

3. This is facilitated by the delivery of a comprehensive and detailed pharmacology syllabus; which has as its emphasis not only in sound pharmacological knowledge but also good clinical practice, expressed by:

   (a) an adequate assessment of the patient’s condition, based on symptoms, history and clinical signs and symptoms;
   
   (b) taking suitable and prompt action when necessary;
   
   (c) recognising and working within the limits of professional competence;
   
   (d) referring the patient to another practitioner, when indicated;
   
   (e) keeping clear, accurate and up to date patient records which report clinical findings and any medications or treatment prescribed;
   
   (f) keeping colleagues well informed when sharing care of patients;
   
   (g) paying due regard to the efficacy and use of resources;
   
   (h) prescribing only the treatment, or medicines that serve the patients needs.

4. The remainder of this APPENDIX sets out the detailed course prescriptions for the pharmacology training required at the:

   ✓ undergraduate level  [Pharmacology Course in the Bachelor of Health Science (Podiatry)]
   
   ✓ postgraduate level  [Postgraduate Diploma in Health Science]

5. Both of these are presently offered only by the AUT, who have provided the following Course Prescriptions.
FACULTY OF HEALTH STUDIES

BACHELOR OF HEALTH SCIENCE

Module 557223

PHARMACOLOGY FOR HEALTH PROFESSIONALS

Semester One

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Module Descriptor

Module Name : Pharmacology for Health Professionals
Code : 557223
Level : 7
Points : 15
Prerequisites : 556106
Co-requisites : nil

Module Prescriptor

Knowledge of pharmacology of commonly used drugs and the application of this to various clinical situations. The role of the health professional in drug management and administration with regard to current legislation, ethical practice, pharmacokinetics and pharmacodynamics.

Learning Outcomes

At the completion of this module students will be able to:

1. use their knowledge of the pathophysiological changes related to illness and disease processes to explain relevant pharmacokinetics and pharmacodynamics of a drug therapy regime
2. discuss the interrelationship between the pharmacokinetics and pharmacodynamics of a drug regime and potential adverse effects.
3. describe in detail the pharmacodynamics at the site(s) of action of a drug
4. explain how the developmental stage of a client/client group can affect drug therapy
5. explain the pharmacodynamic and pharmacokinetic interactions relevant to specific drugs
6. discuss the implications of a drug therapy regime for a client/client group
7. outline the appropriate education programme for a client on a drug therapy regime
8. describe the role of the health professional in drug development and drug monitoring.
9. present an essay at a standard consistent with level 7 of an academic programme
10. demonstrate a commitment to honesty, integrity, collegiality, safe, ethical and legally appropriate practice
11. demonstrate the ability to inform practice by investigation, exploration, problem solving and critical reflection consistent with level 7 of an academic programme

Module Content

- Theoretical concepts of drug actions
- Pharmacodynamics, pharmacokinetics
- Common areas of drug usage
- Pharmacotherapeutic agents
- Drug development and clinical trials
- Ethical and legal responsibilities
- Pharmacovigilance and pharmacoeconomics

Learning and Teaching Strategies

Students will take full responsibility for their learning and development at this level. The skills of reflection and inquiry will be refined to enable students to think critically, consider options and make
decisions based on a sound philosophical and theoretical framework. Students will be encouraged to apply and critique learning and knowledge. Students will be critical consumers of research.

**Assessment Tasks**

- One essay
- Folder presentation

**Learning Resources**

[http://online.aut.ac.nz/learnon/557223/course.nsf](http://online.aut.ac.nz/learnon/557223/course.nsf)

**Required text**


*Students will also need access to an anatomy and physiology textbook and a pathophysiology textbook. See Recommended Text below*

**Recommended text**


**Recommended reading:**


**Introduction to the Module**

This module offers you the opportunity to focus on the theoretical aspects of drug therapy and to apply these critically to a variety of clinical practice situations.

This module utilises the exciting environment of Online learning. I hope that you will find this module enjoyable and challenging as you begin to apply the concepts of pharmacotherapeutics to various clinical practice situations.

**Module Co-ordinator Contact Details**

Gael Mearns  
Office location: AC202  
Telephone: (09) 917 9999 Ext. 7108  
E-mail: Gael.Mearns@aut.ac.nz
ASSESSMENT TASKS:

ASSESSMENT ONE:

**Written Assignment**

**TOPIC**

*Write a 3000 word assignment on the pharmacokinetic effect of a drug on a client*

This assignment is designed to develop critical thinking skills through the case study analysis of a client on a multi drug regime. The assignment focuses on pharmacokinetics of the drugs and the implications of this for the client.

**NORMAL**

- Choose a client who is prescribed a drug therapy regime that involves more than one medication. If not currently in a clinical practice situation, then the student may select an acquaintance, family member or friend who currently prescribed drug therapy.

- Explore the pharmacokinetic concepts of the drug regime that are relevant for this client.

- Describe how the developmental stage of the client will affect the pharmacokinetics of the drug therapy regime.

- Discuss the possible implications that need to be considered in long-term drug therapy for this client.

- You are advised to discuss your choice of client and drug therapy regime with the module coordinator prior to commencing this assignment.

**LEARNING OUTCOMES TO BE ASSESSED**

1. Use knowledge of the pathophysiological changes related to illness and disease processes to explain relevant pharmacokinetics of a drug therapy regime.

2. Discuss the interrelationship between the pharmacokinetics of a drug regime and potential adverse effects.

3. Explain how the developmental stage of a client/client group can affect drug therapy.

4. Explain the pharmacokinetic interactions relevant to specific drugs

5. Discuss the implications of a drug therapy regime for a client/client group.

6. Outline the appropriate education required for a client on a drug therapy regime.

7. Present an essay at a standard consistent with level 7 of an academic programme.

8. Demonstrate a commitment to honesty, integrity, collegiality, safe, ethical and legally appropriate practice.

9. Demonstrate the ability to inform practice by investigation, exploration, problem solving and critical reflection consistent with level 7 of an academic programme.
557223: Pharmacology for Health Professionals

ASSESSMENT TWO:

Folder Presentation

TOPIC

Present an analysis of the pharmacodynamics of a drug and its effect on the body systems.

PROCESS

- Choose a drug that would commonly be used in your clinical area of interest.
- Analyse the pharmacodynamics of this drug, including its receptor pathways.
- Explain other potential effects that this drug may have on the body systems.
- Give a brief history of the drug and how it evolved.
- Discuss the recommendations you would make to your colleagues, regarding the administration and monitoring of this drug in your area.
- Consult current/best practice literature to support your recommendations.

This information is to be presented in a folder (A4 size). The intent is to make a visual presentation that can be used in your clinical area.

LEARNING OUTCOMES TO BE ASSESSED

1. Use knowledge of the pathophysiological changes related to illness and disease processes to explain relevant pharmacodynamics of a drug therapy regime.

2. Discuss the interrelationship between the pharmacodynamics of a drug regime and potential adverse effects.

3. Describe in detail the pharmacodynamics at the site(s) of action of a drug.

4. Explain the pharmacodynamic interactions relevant to a specific drug regime.

5. Describe the role of the health professional in drug development and drug monitoring.

6. Demonstrate the ability to inform practice by investigation, exploration, problem solving and critical reflection consistent with level 7 of an academic programme.
Postgraduate Diploma In Health Science

(Proposed to meet a Podiatry Prescribing Pathway)

FACULTY OF HEALTH STUDIES
**Aim of this Proposal:**

The postgraduate education programme proposed in this document (APPENDIX) is intended to provide information for the New Prescribers Advisory Committee and the NZ Podiatrist Board regarding a programme of study to educate podiatrists in the safe use of a limited range of restricted medicines.

**Background:**

Registered podiatrists are seeking access to prescribe a limited range of medications relevant to their practice of podiatry. In essence, an ability to prescribe a limited range of medications such as non-steroidal anti-inflammatory drugs, topical and systemic antibiotic and antifungal agents are sought. The reason for this is to improve the public’s access to high quality, efficacious and holistic care from their podiatrist.

AUT has an ability to meet this need by offering registered podiatrists a suitable postgraduate programme that will prepare podiatrists to prescribe these medicines in a safe and effective way.

**Recommended level of award:**

Postgraduate Diploma in Health Science.
Papers and Course Structure:

One year full-time, or two years part-time. 120 credit points course work and clinical training programme. Entry requirements, Bachelor of Health Science (Podiatry)\textsuperscript{14} or equivalent qualification as recognised by the Podiatrists Board of NZ. A minimum of three years post basic clinical experience.

<table>
<thead>
<tr>
<th>Title of Paper</th>
<th>Code</th>
<th>Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>One of the Following Papers:</td>
<td></td>
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<tr>
<td>Core Professional Paper</td>
<td>PG 588623</td>
<td>Professional Practice OR</td>
<td>20</td>
</tr>
<tr>
<td>Core Professional Paper</td>
<td>PG 599644</td>
<td>The Practice Reality</td>
<td>20</td>
</tr>
<tr>
<td>PLUS ONE of the Following Papers:</td>
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<tr>
<td>Core Research Paper</td>
<td>PG 588631</td>
<td>Quantitative Research Methods OR</td>
<td>20</td>
</tr>
<tr>
<td>Core Research Paper</td>
<td>PG 588632</td>
<td>Integrative Research Methods OR</td>
<td>20</td>
</tr>
<tr>
<td>Core Research Paper</td>
<td>PG 588618</td>
<td>Critical Enquiry for Evidence Based Practice OR</td>
<td>20</td>
</tr>
<tr>
<td>Core Research Paper</td>
<td>PG 588639</td>
<td>Qualitative Research Methods</td>
<td>20</td>
</tr>
<tr>
<td>PLUS ALL of the Following Papers:</td>
<td></td>
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<tr>
<td>Other Papers</td>
<td>PG 588676</td>
<td>Integrated Practicum</td>
<td>40</td>
</tr>
<tr>
<td>Other Papers</td>
<td>PG 588738</td>
<td>Applied Pharmacotherapeutics</td>
<td>20</td>
</tr>
<tr>
<td>Other Papers</td>
<td>PG 588580</td>
<td>Clinical Decision Making</td>
<td>20</td>
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<td>TOTAL CREDITS</td>
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Paper Prescriptors Overview – CORE PAPERS

All students completing a Postgraduate Diploma in Health Science are required to complete two core papers, one professional and one research paper.

**Professional Practice:** [PG 588623 – 20 credit points]

Critically analyses professional practice from a personal, inter-professional and bicultural perspective. Philosophical approaches to practice are explored along with issues of leadership, power, change, ethics and negotiation in a changing health care context

**OR**

**The Practice Reality:** [PG 588644 – 20 credit points]

Critically analyses the complex nature of the reality in which practice occurs. Brings the philosophical approaches of Hermeneutics, Critical, Post-modern and Maori as tools to examine the nature of practice.

\textsuperscript{14} A prerequisite undergraduate qualification is required covering the following key areas of clinical practice and theory: biochemistry, physiology, pharmacology, medicine, human structure and function, clinical decision making, biophysics, microbiology, pathology, podiatry clinical practice, podiatric medicine socio-political context of practice, psychology and life span development, communication and interpersonal skills, health law and policy, research methodologies, professional practice and ethics, research methods and statistics.
AND

**Quantitative Research Methods:** [PG 588631 – 20 credit points]

Develops an awareness of the contribution of quantitative designs and methods in a variety of applied contexts as well as the relationship of quantitative methods to other research approaches.

OR

**Integrative Research Methods:** [PG 588632 – 20 credit points]

Combines quantitative descriptive methods of survey research and the use of the Statistical Package for Social Sciences (SPSS) for data analysis, and qualitative descriptive methods of interviewing, observation skills and content analysis.

OR

**Qualitative Research Methods:** [PG 588639 – 20 credit points]

Develops an overview of qualitative research approaches and how they both contrast with and complement quantitative approaches.

OR

**Critical Inquiry for Evidence Based Practice:** [PG 588518 – 20 credit points]

Explores the evolution and context of evidence-based practice. Develops advanced skills in accessing, critiquing and synthesizing sources of evidence that underpin clinical practice. Focuses upon and defines problems or issues of clinical significance by critiquing the available evidence, formulating appropriate questions to address weaknesses or limitations in existing evidence and preparing a proposal for change and development using an evidence based framework. It includes examination and critique of socio-cultural-political and ethical contexts that influence health research in New Zealand.

**Paper Prescriptors Overview – SPECIALIST PAPERS:**

**Integrated Practicum:** [PG 588676 – 20 credit points]

Provides registered podiatrists enrolled in this programme with the important practical experience required to competently undertake the safe prescribing of a limited range of medicines to appropriately manage specific foot problems. From a practical standpoint, appropriately qualified podiatry staff with experience in independently prescribing and administering the designated medications, in combination with appropriate adjunctive support from academics, medical practitioners, pharmacologists and pharmacists, will be provided in this paper.

**Applied Pharmacotherapeutics:** [PG 588738 – 20 credit points]

Covers key generic areas of pharmacotherapeutics of relevance to podiatrists and registerable health practitioner undertaking prescribing of a defined range of medicines. Appendix “A” of this paper identifies the medications related to the list of medications podiatrists seek to access in order to provide maximum care for foot pathology. Important pharmacological principles that relate to the therapeutic use of drugs are explored in detail.
Advanced pharmacodynamics and pharmacokinetic parameters and drug interactions in relation to pharmacotherapeutics is contextualised to the clinical setting encountered by podiatrists.

**Clinical Decision Making: [PG 588580 – 20 credit points]**

Focuses specifically on clinical decision making in the management of common foot pathology encountered during the course of normal podiatry practice. There will be an emphasis on applying previous knowledge of science, physical assessment and pharmacotherapeutics in the care of individuals in the clinical setting. The paper aims to have students demonstrate their ability to synthesize the concepts of applied pharmacotherapeutics and integrated practicum. Practitioners will be required to demonstrate critical thinking, interpretation and analysis of information and the rationale for their clinical decision-making, as it applies to the specific medications identified for the scope of practice of podiatry. Emphasis will be placed on demonstrating safe, competent practice with awareness of those drugs listed in the appendix and their actions, indications, contraindications, adverse reactions, drug interactions and dosage.
Framework for postgraduate prescribing pathway for Podiatrists

**Domain**

- Grounding in contemporary Practice
- Critical Inquiry
- Context Specific Theory & Practicum & Practice
- Synthesis & Demonstrated Competency/Safe Practice.
| Papers | Professional Practice  
OR  
The Practice Reality | Quantitative Research Methods  
OR  
Integrative Research Methods  
OR  
Qualitative Research Methods  
OR  
Critical Inquiry for Evidence Based Practice | Integrated Practicum  
AND  
Applied Pharmacotherapeutics | Clinical Decision Making |
|---|---|---|---|
| **Description of the prescription** | **Professional Practice**  
Critically analyses professional practice from a personal, interprofessional and bicultural perspective. Philosophical approaches to practice are explored along with issues of leadership, power, change, ethics and negotiation in a changing health care context.  
**OR**  
The Practice Reality  
Critically analyses the complex nature of the reality in which practice occurs. Brings the philosophical approaches of Hermeneutics, Critical, Postmodern and Maori as tools to examine the nature of practice. | **Quantitative Research Methods**  
Develops an awareness of the contribution of quantitative designs and methods in a variety of applied contexts as well as the relationship of quantitative methods to other research approaches  
**OR**  
**Integrative Research Methods**  
Combines quantitative descriptive methods of survey research and the use of the Statistical Package for Social Sciences (SPSS) for data analysis, and qualitative descriptive methods of interviewing, observation skills and content analysis'  
**OR**  
**Qualitative Research Methods**  
Allows for critical enquiry of a qualitative nature.  
**OR**  
**Critical Inquiry for Evidence Based Practice**  
Develops an awareness of the contribution of critical thinking and inquiry as it pertains to a changing body of scientific knowledge. | **Applied Pharmacotherapeutics**  
Provides currently practicing health professionals with > 5 years experience with pharmacological principles that relate to the therapeutic use of drugs. Explores advanced pharmacodynamics and pharmacokinetic parameters and drug interactions in relation to pharmacotherapeutics in a clinically applied setting. This paper prepares students for prescribing within a defined scope of podiatry practice via the practicum and associated mentoring programme.  
**AND**  
**Integrated Practicum**  
Develops practical expertise in prescribing. It extends and applies the knowledge gained from Applied Pharmacotherapeutics. Health Professionals critique and analyse the prescription of interventions, appliances, treatments and authorised medicines within their scope of practice. An understanding of the monitoring of drug research and development within New Zealand will be developed. | **Clinical Decision Making**  
Students demonstrate their ability to synthesize the concepts of pharmacotherapeutics and practicum to the specific management of common pedal conditions encountered in day-to-day podiatry practice. Emphasis will be placed on demonstrating safe, competent practice with awareness of the actions, indications, contraindications, adverse reactions, drug interactions of medications identified for the scope of podiatry practice. |
Programme: Postgraduate Diploma in Health Science –

Paper: Professional Practice

Paper Code: 588623
Points: 20 points

PAPER PRESCRIPTOR

Critical analysis of and reflection upon what it means to be a professional practitioner working in health related contexts in New Zealand. Emphasis is placed upon critique of teamwork and team practice from a personal-professional, inter-professional and bicultural perspective with a view to transforming professional practice.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ examine the influence of their own personal and professional philosophical values and beliefs upon their role in providing a service within a health related context;

✓ critique the tensions between different paradigms of knowledge that impinge on teamwork in professional practice;

✓ explore and critique the key issues affecting the success of inter-professional teamwork in professional practice;

✓ examine ethical and cultural decision-making in the context of inter-professional team practice in New Zealand;

✓ analyse professional practice issues in relation to the Treaty of Waitangi, cultural, political, economic and social factors that affect decision-making in professional practice;

✓ evaluate the potential of inter-professional teamwork to effect organisational change;

✓ demonstrates capacity for scholarly writing.

CONTENT

This paper will provide the opportunity for students from diverse professional backgrounds, to engage in a collaborative inquiry journey in order to explore and analyse the evolution, context and lived realities of teamwork and team practice in New Zealand.

Professionalism and professional practice

✓ Philosophical approaches to professional practice- positivist, hermeneutic; psychodynamic, critical, post-modern, Maori perspectives;
✓ Inter-professional team-working;
✓ Dimensions of team practice;
✓ Ethical and cultural decision-making in team practice;
✓ Impact of teamwork on the culture and climate of organisations;
✓ Effecting change in professional practice through teamwork;
LEARNING AND TEACHING STRATEGIES

The paper engages students in a range of interactive teaching strategies that facilitate a collaborative inquiry approach to learning. The use of group focused learning approaches, (for example interactive tutor and student-led seminars and action learning circles) are important activities for students using and sharing their skills, experiences and expertise as part of the learning process.

Learning activities will focus on the analysis of real situations from practice (as opposed to the hypothetical), and go on to examine underlying theoretical issues.

The use of reflection, at individual, one to one and group levels, is an important strategy both for examining and integrating theory and practice, and for managing and evaluating students’ own learning.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma in Health Science
Paper: The Practice Reality
Paper Code: 588644 on campus / on-line
Points: 20
Prerequisite: 527189 (Health Research on-line or equivalent)

PAPER PRESCRIPTOR

Critically analyse the impact of the practice reality on the experience of the client and the health professional. Its approach involves the student in bringing a variety of philosophical paradigms to the analysis of practice situations.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ uncover understanding related to personal/professional practice;
✓ demonstrate analysis of practice which draws on the philosophical approaches of positivism, hermeneutics, critical, Maori and post-modern;
✓ achieve a well-constructed scholarly analysis of practice, drawing on philosophical perspectives;
✓ participate constructively in on-line discussion. (on-line students only);
✓ achieve a synthesis of learning that brings an in-depth understanding of the complex whole of the practice situation (explicitly assessed only in on-campus offering).

CONTENT

✓ Positivism
✓ Hermeneutics
✓ Critical perspective
✓ Maori
✓ Post-modernism
✓ Consumer perspective
✓ Practice perspective
✓ Health promotion

LEARNING AND TEACHING STRATEGIES

On Campus:

Students are introduced to the philosophical paradigms through lectures and class discussion. A self-learning tool with related readings will further extend learning.

On Line:

The on-line paper weaves teaching and reading and thinking and responding together. Students are active participants throughout the paper. Web sites are used extensively to provoke thinking. Students are encouraged to relate the ideas presented to their own experiences of practice. They will offer relevant analysis to further inform understanding of their unique practice situation. The range of disciplines in this paper opens a dialogue that stretches, challenges and takes each person beyond their known world of practice.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma in Health Science
Paper: Quantitative Research Methods
Paper Code: 588631
Points: 20
Prerequisite: 527189 (Health Research on-line or equivalent)

PAPER PRESCRIPTOR

He paper provides an overview of research methodologies appropriate to the conduct of research in a variety of health disciplines and applied contexts, with an emphasis on quantitative methods and statistical analysis. The major objective is to equip students with the knowledge and skills required to enable them to carry out their own quantitative research and critically evaluate the research of others.

This will include familiarising students with the use of computers and statistical packages.

It will also include examination of the sociocultural and ethical context within which research is conducted, and relationships between research and practice. In New Zealand, the Treaty of Waitangi is an important contextual factor and issues relating to the conduct of research with Maori and cross cultural research will be discussed.

The paper builds on the student's undergraduate knowledge base. Upon entry, students will be required to have at least an introductory knowledge of quantitative and qualitative research and a satisfactory level of computer literacy. Statistical familiarity should extend to introductory nonparametric and parametric analyses including one-way ANOVA and regression.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✔ formulate a research problem and discuss its rationale, significance and relevance to a health care setting;

✔ select, interpret and discuss appropriate literature associated with a research problem;

✔ select, describe and justify the appropriate methods to examine a research problem;

✔ discuss key issues related to the ethical conduct of research;

✔ present a quantitative research proposal/report in a scholarly format;
CONTENT

The programme of study will assist the student to develop an awareness of the contribution of quantitative designs and methods in a variety of applied contexts as well as the relationship of quantitative methods to other research approaches.

Statistical analyses appropriate to various quantitative research designs will be covered.

TOPICS

✓ The internet and other research resources
✓ Proposal writing
✓ Designs
✓ Univariate statistics
✓ Critical review of research papers
✓ Meta analysis
✓ Single subject design and analyses
✓ Survey design
✓ Interviewing issues
✓ Ethical issues and cultural safety in research

LEARNING AND TEACHING STRATEGIES

Teaching methods will include lectures and laboratory sessions.

Lectures will focus upon research methods, while laboratory sessions will focus upon statistics and provide an opportunity for students to learn to use the Faculty’s primary statistical package: SPSS.

Emphasis will be on enhancing students' ability to make appropriate choices of design and statistics in a variety of situations, encouraging them to use data they have generated themselves and correctly interpreting computer output. Formulae and calculations will not be examined in depth.

Students will also be encouraged to attend and participate in staff and graduate student research seminars.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma Health Science – Paper: Integrative Research Methods

Paper Code: 588632 Points: 20

PAPER PRESCRIPTOR

This paper is designed to provide an overview of integrative (ie, qualitative and quantitative) research methods appropriate for advancing knowledge development across the health care disciplines. Students will be guided to explore a combination of quantitative descriptive methods; e.g. survey research and the use of SPSS for data analysis, and qualitative descriptive methods; e.g. interviewing skills and a variety of analysis approaches including content, thematic and grounded theory analysis.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ demonstrate competence in developing questionnaires and in using computer software to analyse both quantitative and qualitative data;

✓ demonstrate understanding and the skills that are necessary to enable them to plan an integrative research study focussed on a health related issue;

✓ demonstrate an awareness of the contribution of both quantitative and qualitative inquiry and their place within health research;

CONTENT

The paper extends the student’s undergraduate knowledge base.

Upon entry, students are required to have an introductory knowledge of the philosophical underpinnings of the quantitative and qualitative research approaches and their related methodologies and methods.

The paper is designed to extend the student’s knowledge and understanding of how quantitative and qualitative methods can be combined in preparing a research proposal on a relevant health issue. It is also anticipated that the skills required in this paper will be applied in other parts of the Masters programme. (For example, in the construction and writing of reports and essays, using the library resources, critically reviewing research and philosophical arguments, and in the conduct of a dissertation or thesis.)

All students are required to complete this paper, or Quantitative Research Methods (588631), or Qualitative Research Methods (588638); that is – one core research paper. It also usefully links with other Masters papers currently being offered such as Professional Practice (588623), Clients, Carers, Community (588636) and Health Service Provision with Maori (588638).

This paper will also extend the student’s understanding of the relationship between research and practice.

It will also examine and critique the socio-cultural-political and ethical contexts that influence health research. In Aotearoa/New Zealand the Treaty of Waitangi is an important contextual
influence. Issues relating to the conduct of research with Maori and the complexity of cross-cultural research will be examined.

The philosophical and theoretical underpinnings of the paradigmatic approaches and their related methodologies and methods will be explored in brief as a framework for understanding an integrative approach. Each paradigmatic approach will be examined in relation to issues of rigour, ethical and socio-cultural-political considerations.

**TOPICS**

- Paradigmatic and epistemological positions in research.
- Overview of current socio-cultural and political contexts and issues.
- Designing of integrative research and its place in practice.
- Descriptive research approaches – philosophical and theoretical underpinnings
- Quantitative and qualitative information gathering methods including:
  - the design, development and administration of questionnaires;
  - reviewing literature and relevant data;
  - interviewing skills;
  - types of sampling procedures.
- Quantitative and qualitative data analysis procedures:
  - descriptive statistical analysis;
  - an introduction to statistical inference;
  - using SPSS for descriptive and inferential statistical analysis;
  - content, thematic and grounded theory analysis processes.
- Issues related to the reliability and validity of quantitative research methods and rigour in the qualitative research process.
- Interpreting the results and presenting findings.

**LEARNING AND TEACHING STRATEGIES**

Teaching methods will include lectures, group work, guided laboratory activities and exercises, and readings.

A supportive learning environment will be created through co-operative learning approaches within the classroom and laboratory contexts. Guest speakers will be invited to share their knowledge and expertise of particular aspects of the research process eg, cultural and ethical considerations. Students will submit computer laboratory exercises throughout the course.

Students will also be encouraged to use Internet resources for information, attend and participate in Faculty staff and student research seminars, and attend any sessions offered that enhance skills related to research; e.g. writing skills and Endnotes workshops.

**PAPER DURATION**

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma in Health Science –
Paper: Critical Inquiry for Evidence-Based Practice
Paper Code: 588518
Points: 20
Prerequisite: 527189 (Health Research on-line or equivalent)

PAPER PRESCRIPTOR

This paper explores the evolution and context of evidence-based practice. It develops advanced skills in accessing, critiquing and synthesizing sources of evidence that underpin clinical practice. It focuses upon and defines problems or issues of clinical significance by critiquing the available evidence, formulating appropriate questions to address weaknesses or limitations in existing evidence and preparing a proposal for change and development using an evidence based framework. It includes examination and critique of socio-cultural-political and ethical contexts that influence health research in New Zealand.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ critique the context and development of evidence-based practice in health care;
✓ demonstrate a critical understanding of quantitative and qualitative approaches to research, and their contribution to the acquisition of knowledge and professional practice;
✓ demonstrate a critical understanding of issues of rigour relevant to various forms of evidence that underpin practice;
✓ demonstrate the ability to critique research and non-research forms of evidence using recognised frameworks;
✓ explore barriers and identify strategies for improving evidence use in practice;
✓ apply and appraise principles of evaluation to enhance practice;
✓ demonstrate capacity for scholarly writing;

CONTENT

Using the library effectively for post-graduate work.
Scholarly writing.
Journal clubs.
Review of paradigms and methodologies and designs.
Levels of evidence.
Clinical effectiveness: principles of clinical significance.
Frameworks for critical inquiry.
Critical appraisal: quantitative (include rigour).
Critical appraisal: qualitative (include rigour).
Sources of non-research evidence: policy, socio-cultural, scholarly literature and theory, organisational, clinical practice resources.
Synthesis of evidence based practice.
Application: problems and solutions.
Diffusion and change.
Measuring health outcomes.
Applying evidence to dissertation work: research study, clinical project, systematic review, meta-analysis, paper(s) for publication, case studies (series).
LEARNING AND TEACHING STRATEGIES

Lectures, co-operative learning approaches and self-directed learning will be used.

Guest speakers will be invited to share their knowledge and expertise of particular aspects of evidence-based practice.

Students will also participate in journal club groups to engage in the critique of research and non-research evidence related to their field of practice.

Activities and exercises may be used to guide tutorials and supplemental learning activities.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Master of Health Science

Paper: Qualitative Research Methods

Paper Code: 588639

Points: 20

Pre-requisite: 527189 or its equivalent

PAPER PRESCRIPTOR

This paper provides an overview of qualitative research methodologies appropriate for advancing knowledge development across the health care disciplines. The philosophical and theoretical underpinnings of each paradigmatic approach and their related methodologies and methods will be analysed. Each methodology will be examined in relation to issues of rigour, and ethical and socio-cultural-political considerations.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ critique methodological approaches and methods as evidenced in published research studies;

✓ comparatively analyse methodologies with reference to appropriate research studies;

✓ use literature to document arguments;

✓ demonstrate within a qualitative research proposal, understanding and skills that are necessary to enable the planning of a research study focussed on a health related issue;

✓ demonstrate within a qualitative research proposal internal consistency between issues, purposes, questions, methodologies and methods;

✓ demonstrate a capacity for scholarly writing.

CONTENT

Paradigmatic and epistemological positions in research.
Designing qualitative research and its place in practice.
Interpretive methodologies e.g., phenomenology, grounded theory, and ethnography.
Critical methodologies e.g., feminist, critical and participatory approaches, narrative inquiry, and field research.
Post structural methodologies e.g., discourse analysis and deconstruction.
Methodologies that may integrate more than one paradigmatic approach e.g., action research, case study, critical ethnography and historical inquiry.
Issues related the qualitative research process including sampling, data collection, organisation and analysis of data (including use of computer programmes), rigour, and ethical and socio-cultural- political issues.
Critiquing qualitative research studies and proposal writing.
Research grants and funding/opportunities.
LEARNING AND TEACHING STRATEGIES

Strategies will include lectures, group work, guided activities and exercises, and readings.

Visiting speakers with expertise in a particular qualitative methodological approach or research process issue will facilitate some classroom learning sessions.

Students will also be encouraged to use the Internet for information, attend and participate in Faculty staff and student research seminars, and any sessions offered that enhance skills related to research e.g., writing skills and Endnotes workshops.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma in Health Science
Paper: Integrated Practicum: Prescribing
Paper Code: 588676
Points: 40
Prerequisites: 527434 or 557223 or equivalent 588624

Corequisite: 588738 Applied Pharmacotherapeutics

PAPER PRESCRIPTOR

This paper develops expertise in prescribing.

It extends and applies the knowledge gained from Corequisite: 588738 Applied Pharmacotherapeutics.

Health Professionals critique and analyse the prescription of interventions, appliances, treatments and authorised medicines within their scope of practice. An understanding of the monitoring of drug research and development within New Zealand will be developed.

LEARNING OUTCOMES

At the completion of this module participants will be able to:

✓ discuss inter-subject variability factors that can alter the pharmacokinetic processes of drug absorption, distribution, metabolism and excretion;

✓ integrate data pertaining to client health status with pharmacotherapeutic knowledge;

✓ collaborate and consult with other health professionals, about prescribing relevant interventions, appliances, treatments or medications;

✓ consult with clients and their family, provide accurate information, and facilitate client access to appropriate interventions or therapies;

✓ administer interventions, appliances, treatments and medications within the bounds of current legislation, codes, scopes of practice, and according to the established prescribing process and guidelines;

✓ implement appropriate parameters for monitoring therapeutic outcomes;

✓ intervene appropriately to limit and manage adverse reactions/emergencies/crises;

✓ critique the research and development monitoring of clinical trials in New Zealand.
CONTENT

Participants in this module will have the opportunity to develop and critique the practice of prescribing under supervision. The opportunity for developing specific skills within a specific scope of practice (e.g. aged care, podiatry) will be available.

Assessment for prescribing
Clinical reasoning
Understanding the relevant scopes of practice
Prescribing processes:
Issues associated with prescribing: legal, ethical and professional
Prescribing for Appliances, treatments, medications
Prescription writing
Drugs and the Internet
Research and development monitoring
Evaluation of Clinical trials
Elective Topics: (with reference to age/developmental stage where appropriate)
Anti-microbial and antiviral agents in ambulatory care,
Psychopharmacology
Cortico–sterioids
Dermatological therapeutics
Diuretic therapy in primary care
Immunizations
Hormone therapy
Bronchodilators
Endocrine pharmacology
Gastrointestinal agents
Cardiovascular agents
Analgesics
Anti-fungal agents
Anti-anxiety medications
Systemic and Topical Antifungal Preparations
Analgesic preparations
Injectable Steroidal Anti-Inflammatory Preparations
Emergency Management of Anaphylaxis
Non Steroidal Anti-Inflammatory Drugs (NSAIDs)
Antibacterial Preparations
Topical Corticosteroid Preparations

LEARNING AND TEACHING STRATEGIES

The focus of this module is preparation for prescribing in clinical practice. The nature of the participant’s scope of practice will be recognised. Each participant will select a mentor who will encourage reflection and extension of their practice in relation to prescribing. Practice will be supervised, and tutorials will be held regularly.

PAPER DURATION

Clinical Practice 300 hours (maximum)
Classroom/Clinical Tutorials 40 hours
Self-directed learning 60 hours
**Programme:** Postgraduate Diploma in Health Science  
**Paper:** Applied Pharmacotherapeutics  
**Paper Code:** 527188  
**Points:** 20  
**Prerequisite:** 527188 Pharmacology for Professional Practice or equivalent

**PAPER PRESCRIPTOR**

This paper provides currently practising health professionals with five or more years experience with pharmacological principles that relate to the therapeutic use of drugs. It explores advanced pharmacodynamics, pharmacokinetic parameters and drug interactions in relation to pharmacotherapeutics in a clinically applied setting.

The paper prepares students for prescribing within a defined scope of podiatry practice via the practicum and associated mentoring programme.

**LEARNING OUTCOMES**

On completion of this paper, students will be able to:

- integrate pharmaceutical history, the client’s experiences of past and ongoing side effects and critique the rationale behind the client’s current drug therapy regime;

- analyse the client’s health status and the factors that may influence potential pharmacokinetic and pharmacodynamic interactions in relation to the current drug therapy regime;

- apply advanced physiological and pathophysiological knowledge related to age and disease in relation to pharmacotherapeutics;

- using an appropriate risk/benefit analysis framework, be able to critique the use of prescribed medications, with each other and with alternative or complementary and over-the-counter medications and appliances;

- present written work in the appropriate scholarly and academic manner;

- describe drug development processes and demonstrate the critical consumption of research in relation to the concept of bio-equivalence and the role of pharmaceutical industry related to the above;

- integrate New Zealand legislation including the regulations and the processes associated with prescribing. Ensure key government agencies are utilised throughout.
CONTENT:

Pharmacology and Health Professional practice in relation to New Zealand health legislation and current practice.
Pharmacodynamic principles.
Pharmacokinetic principles.
Pharmacotherapeutics (including age related).
Pharmacoeconomics.
Management of pharmacotherapeutics and prescribing (e.g. standing orders, dependent prescribing) as it relates to the NZ setting and how this compares internationally (ie Pharmac issues).
Clinical trials, drug development and research.
Drugs of abuse / misuse of drugs.
Complementary therapies / over the counter medications.
Epidemiology and disease patterning.
Cultural and gender issues related to drug therapy.

LEARNING AND TEACHING STRATEGIES

This paper is designed for health professionals working within a particular scope of practice.

Strategies will comprise of lectures, self-directed learning, case study analysis, and small group discussion.

Participants will be encouraged to discuss, reflect upon and critique their current knowledge base as it relates to their scope of practice.

Students enrolled in the podiatry-prescribing pathway will undertake relevant case specific tutorials.

PAPER DURATION

This paper is expected to be completed in one Semester. The learning outcomes should be achieved after 200 hours of learning.
Programme: Postgraduate Diploma in Health Science  
Paper: Clinical Decision Making  
Paper Code: 588580  
Points: 20 points  
Pre-requisites: 588738 Applied Pharmacotherapeutics

PAPER PRESCRIPTOR

This paper focuses specifically on clinical decision making in the management of common acute and chronic illnesses. There will be an emphasis on applying previous knowledge of science, physical assessment and pharmacotherapeutics in the care of individuals in the clinical setting.

LEARNING OUTCOMES

On completion of this paper, students will be able to:

✓ integrate knowledge of anatomy, pathophysiology, clinical guidelines, evidence based practice and relevant theoretical concepts into decision making about the management of clients with acute and chronic pathologic conditions;

✓ demonstrate appropriate and effective communication skills in interviews and interactions with clients, client groups, agencies, health professionals and members of the interdisciplinary health care team;

✓ present written documentation and verbal explanation of all relevant details for a client/client group in a format that meets agency standards, professional, legal, ethical and academic obligations;

✓ demonstrate appropriate clinical decision-making and communication skills in identifying, obtaining and interpreting all the information relevant for the assessment of a client or client group;

✓ demonstrate effective diagnostic reasoning processes in using assessment information to develop, implement, evaluate and adapt appropriate and innovative client centred management;

✓ identify issues of concern for particular social and cultural groups and demonstrate a humanistic and holistic approach to prioritising any client concerns and issues when working with clients;

✓ co-ordinate appropriate and effective care for complex clients with acute or chronic pathologic conditions in a timely and cost effective manner;

✓ integrate health promotion activities into the care of clients and in the provision of individualised and evidence based health education sessions;

✓ critique the appropriate use of all assessment and treatment modalities in the management of clients with acute and chronic pathologic conditions;
CONTENT

This paper will provide application of current evidenced-based guidelines for the care of individuals with acute and chronic illness in the clinical setting.

Ethical philosophies, theories and principles and their application.
Providing advanced nursing/podiatry practice model of care.
Multi-professional context of health care in decision-making.
Analysis and articulation of the nature and effectiveness of their own decision-making and that of others in professional health care practice situations.
Management of common pathologic conditions within a scope of (podiatry) practice.

LEARNING AND TEACHING STRATEGIES

This paper is designed for those students seeking to advance their practice within a specific scope of practice.

Learning and teaching strategies will also include lectures, case study analysis and small group discussion.

Participants will be encouraged to discuss, reflect upon and critique their current knowledge base as it relates to their scope of practice.

PAPER DURATION

Students will be required to complete 140 hours of supervised clinical practice in a setting with a client population of their choice.
### OVERVIEW OF PROPOSED POSTGRADUATE PODIATRY PROGRAMMES

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<sup>15</sup> Indicates a new paper.
APPENDIX E – TWO CASE HISTORIES

INTRODUCTION:

Two clinical case histories are discussed to highlight the use of four prescription medication types (i.e. antibiotics, injectable local anaesthetics, non-steroidal anti-inflammatories (NSAID’s) and injectable corticosteroids) commonly utilised in podiatric medicine.

Case Study 1. Chronic Paronychial Onychocryptosis:

An otherwise healthy 18 year old male presents to the podiatrist, at 5pm on a Friday afternoon, complaining of a painful infected great toe nail which is preventing him from playing soccer.

Clinical Examination and Diagnosis:

Clinical examination confirms the diagnosis of an ingrown toenail (onychocryptosis) with bacterial infection, chronic paronychia \(^1\) hypergranulation tissue (pyogenic granuloma) and hypertrophy affecting both ungualabiae of the right hallux. The hypergranulation tissue is found to be obliterating approximately 30% of the nail plate.

The nail margins (ungualabiae) are suppurating freely and the toe is severely inflamed with its volume increased by approximately 25%.

There is no other apparent toe deformity \(^3\).

History:

The 18 year old male has a long history of the condition and is having to wear open sandals to prevent shoe pressure on the toe.

He complains that since the beginning of the soccer season, almost four months ago, the toe had become extremely painful, red and swollen.

He went to see his family doctor a couple of days after the toe got sore who did not look at it but prescribed him some antiseptic cream and sent him away.

The toe did not improve with the application of the cream and so the patient returned one week later to see his GP who looked at the toe and suggested it might be becoming infected and prescribed topical antibiotic cream (Fucidin 2%).

Another week later the toe had not improved; in fact it was getting more painful, red and swollen. It had developed a smelly yellow discharge which appeared to be worsening and so the patient returned to see his GP once again.

This time the GP suggested that the infection appeared to be worsening and so he prescribed oral antibiotics and applied silver nitrate to the developing hypergranulation tissue. Initially this form of treatment caused the hypergranulation tissue and the local inflammation to decrease slightly but without full resolution.

However, because of frequently recurring episodes of infection, this form of treatment appeared to be unsuccessful despite its being continued over the following few months. As a consequence of the expense associated with frequent GP visits, and prescription of antibiotics, the patient requested a referral to a foot specialist. The GP then suggested he see a podiatrist.
Podiatric Management:

Chronic bacterially infected onychocryptosis is the most frequently encountered nail condition seen by podiatrists (4) and can result in infection in the bony tissue (osteomyelitis) of the underlying distal phalanx (5,6,7).

Initial management of this condition is aimed at bringing the infection under control primarily through removal of the offending nail tissue, prescription of “initial judgement” antibiotics, specific identification of any pathogens and diagnosing the presence or absence of underlying osteomyelitis (8).

Surgical management will follow once the infection is brought under control.

The treatment regime required is:

1. Immediately:
   - removal of the offending nail spikules/nail margins (partial longitudinal nail margin & matrix removal) under local anaesthesia (1% lignocaine hydrochloride – without epinephrine) (9);
   - sampling of discharge material from the deeper tissue for laboratory analysis by way of culture and sensitivity testing (10,11);
   - early “initial judgement” (Fucloxacillin 250mg at six hour intervals before meals) antibiotic cover (the most common infecting organism of the foot being staphylococcus aureus) (8,12,13);
   - plain radiographic investigation of the hallux;
   - specific diagnosis of the infecting organism from the culture and prescription of the effective antibacterial medication from the sensitivity test (14,15);
   - evaluation of the radiographic findings in order to determine the likelihood of any bacterial infection in the bone (e.g. hematogenous osteomyelitis) (16) of the distal phalanx adjacent to the chronic bacterially infected nail margin tissue.

2. After 7 Days:
   - if the radiographs do not demonstrate the presence of infection in the bone (osteomyelitis), and once the soft tissue infection appears to be under control, to determine the most appropriate form of surgical management under local anaesthesia (17);
   - if the radiographs do demonstrate the presence of infection in the bone (osteomyelitis) to carry out the surgical procedure under local analgesia by way of a bilateral partial longitudinal sharp wedge resection of the nail bed and matrix with debridement and curettage of the infected bone tissue (18);
   - sampling of debrided bony tissue for laboratory analysis by way of culture and sensitivity to determine the infective organism and the most effective antibacterial medication (8,10,11,19);
   - allow healing by second intention (19);
   - follow-up radiographs one month post operatively to confirm bone healing.

The podiatrist discusses the required treatment regime, as outlined, gains written informed consent to continue and to initially remove the offending nail sections under local anaesthesia.

The podiatrist is then forced to refer the patient back to his GP for yet another prescription of antibiotics and for pathology laboratory testing. The patient frustratingly complains that he cannot financially afford to return to his GP yet again and is baffled why the podiatrist can legally use local anaesthesia to remove the offending toenail sections and even perform invasive surgery on the nail yet does not have the authority to obtain a pathology report or prescribe the required antibiotics to settle the infection down following palliative treatment or before proceeding with the required surgery. The podiatrist phones the patients GP to discuss the case and request a prescription for antibiotic cover. The practice nurse indicates that the doctor has left for the weekend and suggests that, in any case, the doctor would want to see the patient before writing the prescription.

The first available appointment is after the weekend at 3pm the following Monday and rather than wait until after the weekend the patient begrudgingly elects to go to the after hours clinic in order to get
immediate access to the treatment he requires. The podiatrist phones the after hours clinic and speaks to an attending registered medical practitioner and arranges for a consultation, plain radiographs of the toe and a prescription. Together the doctor and podiatrist discuss the most likely infective organism to be staphylococcus aureus and the most likely prescription of Flucloxacillin. They also discuss the podiatrists immediate treatment plan which includes, taking a deep tissue swab to be taken by the patient to the after hours clinic for them to send to the pathology laboratory for culture and sensitivity testing and, removing the offending nail margins under local anaesthesia.

Because of the time frame the patient is required to immediately undergo the nail margin removal under local anaesthesia by the podiatrist and then, instead of keeping the foot elevated to minimise bleeding, he has to get a taxi to the after hours clinic to see a doctor for antibiotic prescription. This takes up a lot of time and costs the patient an extra treatment fee for the doctor plus a fee for writing the prescription (Flucloxacillin 250mg), a taxi fee to the after hours clinic and a taxi fee home after seeing the doctor.

It also costs the Government an extra fee for the doctors consultation.

Following the initial nail margin removal the toe is usually dressed with a sterile dressing (e.g. silver sulfadiazine)\(^{(20)}\) and the patient returns for surgical correction when the infection is under control and no longer likely to form a threat.

In this case the radiographs failed to demonstrate the presence of osteomyelitis and the swabs confirmed the presence of a soft tissue infection of staphylococcus aureus, as the infective organism, with sensitivity to Flucloxacillin.

The patient returns at 4 days after initial nail margin debridement and the infection showed signs of resolution. When seen again after another 4 days the infection is under control with no sign of any purulent discharge and only minor localised inflammation. The hypergranulation tissue shows signs of shrinkage indicating that a minor surgical procedure would fully resolve the recurrent problem over the longer term.

The patient continues a regime of daily saline soaks and Betadine solution dressings for a further 2 days prior to undergoing surgery by way of partial nail matrix ablation and hypergranulation tissue debridement utilising the phenol/alcohol method \(^{(21,22,23)}\).

Antibiotic cover continues over this time and for another 4 days postoperatively, at which time the patient returns to be advised how to care for the toe himself whilst recovering from the effects of the phenolisation.

When seen 4 weeks post operatively the patient is pain free and the onychocryptosis is fully resolved with no evidence of post operative complication or tissue infection.

**Case Discussion:**

Antibiotic cover is often required at the first visit to the podiatrist in order to bring the infection under control after removal of the longitudinal sections of nail under local anaesthesia and before any invasive surgical procedure can be considered.

In cases such as this patients may have been unnecessarily exposed to the risk of developing severely debilitating infections, suffering unnecessary risk of over exposure to prescription medications \(^{(23,24,25,26)}\) as well as incurring the inconvenience and expense of otherwise avoidable excessive medical treatment costs. Government is also exposed to the effects of over-prescribing and unnecessary costs associated with prescription and medical treatment costs.

In such cases podiatrists frequently feel humiliated, embarrassed, and discriminated against by having to refer patients back to their GP for laboratory testing and prescription medications. This is so particularly when they have the qualifications, skills and necessary training to speedily ensure accurate diagnosis of the infection and perform the required invasive corrective surgery.
Because of the restrictions placed upon podiatrists, their patients often also feel discriminated against, 
let down, and that their fundamental right to choose who treats them is being denied. Patients consider 
their podiatrists to be their primary health care professional and to be the specialist with regard to the 
diagnosis and management of foot related conditions.

Podiatrists are trained, at undergraduate level, to diagnose and treat (palliatively and surgically)(21) 
onychocryptosis as part of their normal scope of practice. Therefore they are charged daily with the 
responsibility of the palliative and surgical management of both acute and chronic bacterially infected 
ingrown toe nails (4). Whilst podiatrists in New Zealand are qualified and able to carry out the 
necessary clinical treatment of the condition they do not yet have the authority to prescribe the 
necessary antibiotics to bring the management of this condition to a successful and safe conclusion 
within an acceptable time frame.

One other anomaly in the podiatric management of onychocryptosis is that whilst podiatrists are 
qualified and allowed to take a swab for pathology laboratory analysis (gram stain, culture and 
sensitivity test) to identify the infecting organism they have to charge the patient the full laboratory 
fees for the service. Unlike general medical practitioners, podiatrists do not attract a government 
subsidy for this, often vitally necessary, service.

The point of highlighting the need for podiatrists to be authorised to prescribe a range of antibiotic 
medications, in cases such as the one outlined here, is that –

- The patient’s general practitioner did not refer the patient on for more urgent specialist 
treatment of the onychocryptosis once the infection became apparent.
- Over a long period of time, the patient was subjected to over-prescribing of systemic 
antibiotics and so put at risk of developing a resistance to the antibiotics being used.
- The patient was placed in an ‘at-risk’ position of developing a more serious infection 
(osteomyelitis) because the essential early intervention (i.e. removal of the offending nail 
tissue) needed in order to bring the infection under control was not provided.
- Very often, patients present primarily to podiatrists with very chronic onychocryptoses without 
having seen any other health care practitioner. In doing so they are expecting the podiatrist to 
completely manage the condition by way of diagnosis, initial treatment, laboratory screening, 
supply of prescription medications and, often, eventual surgery.
- If podiatrists were to be given authority to prescribe a range of antibiotics the medical risk to 
the patient would be dramatically reduced.
- Prescribing and laboratory screening restrictions put discriminatory financial strain on 
patients.
- Prescribing and laboratory screening restrictions also put avoidable and unnecessary 
financial strain upon the health care system.
- Podiatrists have a long history in the safe use of injectable anaesthetics and possess the 
clinical skills, surgical training and knowledge to fully manage infections of the foot, other than 
having the authority to prescribe essential antibiotic medications.
- Podiatrists have shown historically that they are responsible primary health care practitioners 
capable of ensuring that the competencies required to advance their scope of practice, 
through undergraduate and postgraduate education, are met.

The Role of Local Anaesthetics

In 1975 Podiatrists gained access to prescription medications by being given the right to administer 
injectable local anaesthetics (lignocaine hydrochloride 1%)(6). Over that time their safe use has been 
taught at undergraduate level and podiatrists have consistently demonstrated safe utilisation of 
injectable local anaesthetic solutions in their normal scope of practice(27).

Some authors advocate the use of alternative injectable local anaesthetics to lignocaine hydrochloride 
(e.g. bupivacaine hydrochloride 0.5%)(8) which are quicker acting and provide longer lasting 
anaesthesia in the surgical management of foot related pathology.
References:

Case Study 2. Plantar Fasciitis:

A 40 year old male retail manager, who is attending the podiatrist for one of his regular consultations for treatment of recently developing uncomfortable callus on the soles of his feet, complains of a painful left heel which has been worsening and is now preventing normal weight bearing activities.

Clinical Examination and Diagnosis:

The patient is a overweight 95kg (1) married man with three school age children. Clinical assessment reveals deep and localised pain in the region of the medial band of the plantar fascial attachment to the plantar medial condyle of the left calcaneus. From this point there is palpable pain radiating 3-4cm distally into the medial band of the plantar fascia with superficial swelling in the region when compared to the right.

Since starting his exercise programme the patient has also been experiencing some niggling lower back and left ankle joint pain.

Biomechanical assessment reveals structural anomalies in his legs and feet (2) which cause him to hyperpronate throughout the stance phase of gait with reduced shock absorption at heel strike. He demonstrates limited total range of motion at all major joints in his feet especially with regard to ankle joint dorsiflexion (3,4,5).

The initial clinical diagnosis is that of exercise induced plantar fasciitis (enthesopathy) as a result of functional overuse secondary to abnormal biomechanical compensation of the foot on weight bearing (2,6). The problem is exacerbated by the patient’s elevated body weight, lack of joint mobility and his occupation (3,4).

Plantar fasciitis may be an associated symptom of other systemic illness and so there may be a need for differential diagnosis by way of haematological studies for seronegative spondyloarthropathies such as Reiter’s syndrome (1) and dependent upon the patients response to more general management (4,9).

History:

Since beginning a fitness treadmill walking programme, three months ago at the gym, the patient has been experiencing gradually increasing discomfort in his left heel, ankle and lower back. There is no history of acute injury and, other than morning stiffness in his lower back over the past couple of years, he has no previous history of any similar condition.

He complains of extreme discomfort on first weight bearing in the morning causing him to hobble. The discomfort eases somewhat as weight bearing continues but never fully resolves and feels like a dull ache or bruise most of the time he is at work as a retail manager in a department store. Following a return to weight bearing after rest periods the severe pain recurs (5,10,11). This is aggravated by the need to wear a leather dress shoe at work. The pain is less severe when wearing his sports training shoe however he is unable to continue with his fitness walking because exercise exacerbates the pain.

He decided not to visit his general practitioner because as a regular visitor to the podiatrist, whom he considers to be a foot specialist, he thought that would be the best health care practitioner to help him.

Podiatric Management:

Plantar fasciitis is claimed by researchers, and clinicians alike, to be one of the most common of the musculoskeletal conditions (3,5,10,11,12,13,14) to be diagnosed and managed by podiatrists.

The aim of treatment is to restore normal pain free foot function with a return to fitness activities within the shortest possible time span.
Following initial diagnosis treatment consists of rest (from causative or aggravating activity), biomechanical control, increasing the shock absorptive capacity of the foot, decreasing the inflammation and controlling the pain.

Management of the condition consists of:

1. Immediately:
   - referral to the patients GP for prescription of oral non-steroidal anti inflammatory (NSAI) medication \(^{2,9,15,16}\) (e.g. Diclofenac Sodium EC 50mg)
   - carrying out a biomechanical assessment of the foot, and lower limb, in order to identify any structural/functional foot anomalies with a view to prescribing biomechanically balanced foot orthoses to control any abnormal foot/lower limb function \(^{2,5,6,11,17,18,20,21}\)
   - discuss the use of night splints as an effective method of reducing the early weight bearing discomfort \(^{11,19,22,23,24}\)
   - application of plantar rest (low Dye) strapping, to be retained intact for 4-5 days, in order to immobilise the tarsus and mid-tarsus thus limiting the stretch of the plantar fascia off the plantar calcaneal tuberosity on weight bearing
   - advise on footwear and activity

2. After 4 days with plantar rest strapping and oral NSAID’s:
   - reassessment of the pain levels (using visual analog pain scale - VAPS)\(^{1,25}\)
   - reassessment of the effect of the strapping and NSAID’s
   - casting for biomechanically balanced foot orthoses
   - restrapping if found beneficial
   - continuation with NSAID’s, if helpful and no clinical sign of complications associated with their use

3. After a further 7 days with plantar rest strapping and oral NSAID’s:
   - reassessment of the pain levels (VAPS)
   - reassessment of the effect of the strapping and NSAID’s
   - issue biomechanically balanced foot orthoses
   - issue night splint

4. After 4 weeks using orthoses, night splint and NSAID’s
   - compare time of onset, duration and intensity of discomfort now with that described at the first consultation (VAPS) and assess the need for continuation of NSAID’s and advise regarding their safe use and to use them only when the discomfort becomes extreme
   - assess level of activity compared to that recorded at first visit \(^{26,27}\)
   - if recalcitrant consider the need for referral for diagnostic ultrasonography \(^{26,27}\), xray, combination corticosteroid/anaesthetic injection (e.g. dexamethasone sodium phosphate 4 mg/ml, 1ml), haematological testing \(^{28}\) and ultimately surgical intervention if indicated \(^{14,29,30,31,32,33}\)

Case discussion:

Most cases of plantar fasciitis are chronic in nature and insidious in onset. As in this case they are often associated with the patient being overweight and in an occupation requiring long hours of standing, often on hard floors. Some cases are acute as a result of weight bearing trauma either at work or during sport or leisure time. Almost all cases occur as a direct result of functional/mechanical overuse or repetitive stress type activity.

The mechanism of injury is either that of traction of the periosteal attachment of the plantar fascia away from the plantar medial calcaneal tuberosity of the calcaneus and/or microscopic tearing apart of the fibres of the plantar fascia close to its attachment to the plantar medial calcaneal tuberosity of
the calcaneus. All of which, as in this case, result in enthesopathy and the associated deep inflammatory response within the plantar fascia.

Bony spurs are commonly associated with the condition but are not always significant to the presence, onset or severity of the pain.

Initially in this case the patient did respond well to the low Dye plantar rest strapping combined with the use of the NSAID (Diclofenac Sodium EC 50mg) and described an estimated 50% pain reduction (onset time, duration and intensity) after 4 days of use. However he developed an allergic reaction to the taping material (zinc oxide sports tape) and so the taping could not continue.

The use of Diclofenac Sodium EC 50mg was continued along with a reduction in weight bearing activity whenever possible and he was introduced to a calf/plantar fascia stretching programme to help improve his foot mechanics \(^{(34)}\).

He was fitted with a night splint five days after his initial consultation and was seen after another 5 days for fitting of his biomechanically balanced foot orthoses. At that time he was complaining that his heel pain at the end of the day had returned almost to the same intensity as at his first visit but that the early morning weight bearing pain had comfortably reduced to a tolerable level, estimated again to be at about 50% of the original level.

He was seen again two weeks after being fitted with his orthoses at which time, despite use of the night splint, he had not experienced any major improvement in his symptoms.

The need for more differential diagnosis by way of further investigations, by way of blood tests, was discussed with the patient.

Considerable time was spent explaining why podiatrists are currently unable to attract a Ministry of Health subsidy for their patients requiring the services of pathology laboratories. He expressed annoyance and frustration that he could not have the required tests authorised by the podiatrist and that he had to be referred back to his GP (who was unfamiliar with his case) for these to be done. As his doctor was in the suburbs, and not in the city where he worked, this would be very inconvenient and incur more expense, a delay in them being done and possibly loss of time from work.

He was begrudgingly referred to his GP for blood tests, to rule out seronegative spondyloarthopathies, such as Reiter’s syndrome, of which plantar fascitis is a classic symptom \(^{(7)}\). Both non-specific tests - erythrocyte sedimentation rate (ESR) and complete blood count (CBC), which are elevated in inflammation in systemic arthropathy and specific tests - uric acid, rheumatoid factor, antinuclear antibody (ANA), anti-DNA antibody, compliment studies (C3 & C4) and total haemolytic complement (CH50), which identify specific rheumatic disease, were requested.

Plain radiographs were ordered to check for calcaneal spur formation. A request for consideration for an anti-inflammatory steroidal injection (dexamethasone sodium phosphate 4 mg/ml, 1 ml) was also included.

All of the requests were fulfilled 5 days following the date of referral following a telephone conversation with his GP.

His ultrasonographic scans and radiographs demonstrated the presence of a small heel spur with the enthesopathy being evidenced by increased radiopacity in, and adjacent to, the insertion of the plantar fascia and there was increased thickness of the surrounding connective tissue demonstrating an inflammatory region. The blood tests returned negative for seronegative spondyloarthopathies.

The patient was seen again one month following the injection of the steroid and was showing signs of decreased pain overall. The early morning weight bearing discomfort had reduced an estimated eight points on a ten point visual analogue pain scale (VAPS - zero being nil pain and ten being pain at its worst).

He was still experiencing discomfort upon weight bearing for an hour or more but the pain tended to subside as time progressed through the morning. However he was still uncomfortable on rising from
rest periods and at the end of his working day but to a far lesser degree estimated to be six points reduced on the ten point VAPS. He indicated that on some days the discomfort was worse than others and he continued to manage any severe discomfort with the NSAID’s but only when necessary and on an irregular basis. He was showing no sign of gastrointestinal upset with their use and there was no clinical evidence of any undesirable connective tissue change at the corticosteroidal injection site.

At two months post steroid injection he was returning to moderate exercise and beginning to feel fitter again whilst experiencing gradual weight loss. He had discontinued the use of Diclofenac NSAID medication. His early morning weight bearing pain had all but reduced an estimated nine points on the VAPS and he was advised to discontinue use of the night splint when he felt confident to do so but to return to its use if the early weight bearing pain was recurrent. His biomechanically balanced orthoses were comfortable and in 100% use in all of his footwear.

The current literature indicates that early introduction of NSAID’s, in combination with other conservative treatment regimes, in the management of pain associated with the acute phase of musculoskeletal injuries, such as plantar fasciitis, tends to initiate the inflammatory state in plantar fasciitis, tendinitis, tenosynovitis and joint pain (25,26,36,37,38). However some research shows failure of steroidal injection therapy at reducing the level of discomfort in the problem (39,40). There is also evidence of rupture of the plantar fascia and connective tissue atrophy linked with injectable corticosteroid use (39,41,42).

This typical case history serves to highlight –

- That Podiatrists are seen by many as the primary health care practitioners who specialise in musculoskeletal problems associated with both the athletic and non athletic members of New Zealand society.
- That very often, patients present primarily to podiatrists with very chronic musculoskeletal problems without having seen any other health care practitioner. In doing so they are expecting the podiatrist to completely manage the condition by way of diagnosis, initial treatment, laboratory screening, supply of prescription medications and, often, eventual surgery.
- That the patient (in the case history) was placed in a position of having to endure worsening discomfort unnecessarily through having to be referred to his GP for a prescription for NSAID’s.
- The fact the patient would have to wait for a convenient time for him to visit his GP in the suburbs caused unnecessary frustration, expense, pain and suffering.
- If podiatrists were to be given authority to prescribe a range of NSAID’s, corticosteroidal injections, and longer acting injectable local anaesthetics, the quality of health care for the patient would be dramatically increased and their symptoms reduced more quickly and effectively.
- Prescribing and laboratory screening restrictions put discriminatory financial strain on patients.
- Prescribing and laboratory screening restrictions also put avoidable and unnecessary financial strain upon the health care system.
- Podiatrists have a long history in the safe use of injectable anaesthetics and possess the clinical skills, surgical training and knowledge to fully manage musculoskeletal problems of the foot, other than having the authority to prescribe essential NSAID’s and injectable corticosteroid medications.
- Podiatrists have shown historically that they are responsible primary health care practitioners; capable of ensuring that they meet the competencies required to advance their scope of practice, through undergraduate and postgraduate education.
References:

APPENDIX F – PODIATRIC PRESCRIBING GUIDELINES

[Note: This APPENDIX is intended to become a stand alone document, after suitable editing, so may repeat some of the material elsewhere.]

Principles to Guide Podiatric Prescribing in New Zealand

By NZ Podiatrists Board and the NZ Society of Podiatrists Inc.

1. Introduction

The Podiatrists Board, the NZ Society of Podiatrists have worked closely with the Auckland University of Technology to establish a high standard of podiatric pharmacology education. The AUT Postgraduate Diploma in Health Science (pathway to podiatric prescribing) papers have been designed to meet the growing demands and expectations of the foot suffering public, the podiatry profession and their medical colleagues.

The Podiatrist Board and NZ Society of Podiatrists submission does not support the blanket granting of prescription rights to all Podiatrists in NZ for all classes of medicines. Rather the submission supports a limited granting of rights only to Podiatrists who complete a course of education to provide them with the proper level of knowledge and skill in prescribing medicines.

Podiatrists who choose not to seek prescribing rights will be able to maintain their standards of practice continuing to prescribe over the counter medications, and continue to refer their patients to medical practitioners or podiatric prescribers when necessary.

The Board, by adopting these principles of practice will administer clear and definitive scopes of practice and will enable, by the identification of best clinical practice, the enforcing of a limitation to the boundaries identified by the scope of practice.

This will provide reassurance to the Board and the Ministry of Health that the highest standards of competency in prescribing are being maintained.

These guiding principles should not be seen in isolation from the Postgraduate Diploma in Health Science (pathway to podiatric prescribing) course of education. This detailed and high-level education programme will ensure that all participants meet all the learning outcomes of the Postgraduate Diploma in Health Science. This is the establishment of the foundation of knowledge and skills to equip the Podiatrist to safely prescribe, and one cannot be considered without knowledge of the other.

2. Scopes of Podiatry as Defined by Podiatrists Board

The Podiatrists Board, defined as a Registerable Authority under the Health Practitioners Competence Assurance Act\textsuperscript{16}, is required to prepare and Gazette Scopes of Practice in relation to the practice of podiatry in New Zealand.

\textsuperscript{16} Hereafter referred to as HPCAA.
The Scopes are defined thus:

**Podiatrist**

“A registered primary health care practitioner who utilizes medical, physical, palliative and surgical means other than those prescribed in the Podiatric Surgeon Scope of Practice, to provide diagnostic, preventative and rehabilitative treatment of conditions affecting the feet and lower limbs.”

**Podiatric Surgeon**

“A registered primary health care practitioner who holds the scope of practice of Podiatrist and is qualified to perform surgery by way of sharp toenail wedge resection, surgical correction of lesser digital deformities affecting the phalanges, metatarsals, and associated structures; surgical corrections of osseous deformities of the metatarsus, mid-tarsus, rear-foot and associated structures; surgical correction and removal of pathological subcutaneous structures such as tendinous and nervous tissues and other connective soft tissue masses of the foot.”

**Podiatric Radiographer**

“A registered primary health care practitioner who holds the scope of practice of podiatrists, who is qualified to in the use of radiographic equipment and is licensed by the National Radiation Laboratory, to obtain plain radiographic images of the foot and ankle and lower leg”

**Podiatric Prescriber**

“A registered primary health care practitioner who holds the scope of practice of Podiatrist, and holds the AUT Postgraduate Diploma in Health Science (podiatric prescribing pathway) or equivalent or an equivalent overseas qualification, and is licensed to prescribe a limited formulary within the scope of practice of podiatry.”

Section 32 of the HPCAA requires the Board to endorse a Podiatrist’s annual practicing certificate. This endorsement will indicate the scopes of practice to which the Podiatrist is entitled and within which they must limit their work. Only podiatrists with the defined qualifications will have their scopes of practice endorsed.

### 3. Auditing of Podiatric Prescribers

Section 40 of the HPCAA, allows the Board to ‘set or recognize competence programmes from time to time’. The Board will re-certificate every holder of the scope ‘Podiatric Prescribing of a Limited Formulary’ every year. Further the Board will require the Prescribing Podiatrist to demonstrate competency with evidence of ongoing education in the area of podiatric pharmacology.

The Board will appoint a *Podiatry Prescribing Audit Committee (PPAC)* to conduct regular random audits on podiatrists who hold the *Scope of Practice of Podiatric Prescriber.*

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17 As for all other practitioners under the auspices of the Board.
The PPAC will comprise:

- A Board member;
- A Registered Medical Practitioner;
- A Representative of the Ministry of Health;
- A Podiatric Prescriber (with provision for an alternate);
- A Representative of an authorised Tertiary Education Provider;

If the Board is not satisfied that a Podiatrists remains competent to prescribe, or has acted outside their scope(s) of practice; or the Board receives a complaint from the Ministry of Health, another health professional or a complaint from a member of the public;

then the Board will deal with such a complaint under the Complaints and Discipline provisions of the HPCAA (Part 4).

As part of the process, the Board will receive advice from the Health and Disability Commissioner, and the Commissioner’s Director of Prosecutions also as prescribed under the HPCAA.

Where appropriate, as determined by the HPCAA, a Podiatrist may have their Annual Practicing License suspended, removed or the permitted scopes of practice amended.


The authority to prescribe medicines is controlled by the Medicines Act 1981. The Board recognise that such prescribing needs to be in conformance with the Code of Health and Disability Services Consumers' Rights 1996.

The Board recognises, promotes and requires good safe prescribing practice of registered podiatrists.

All patients have the right to treatment meeting appropriate ethical and professional standards, and should be fully informed by frank discussion about the risks and benefits relating to medicine efficacy and safety for the treatment regimen proposed. Medicine use is a complex process that involves the sub-processes of prescribing, order processing, dispensing, administration, and effects monitoring.

All medicines will have particular contra-indications, which may cause problems of interaction with other body systems. The risk of giving any medicine must be outweighed by the benefits the patient will derive by taking the medicine. The proposed education programme 18 will equip the podiatrist with the knowledge and skills necessary to allow them to understand and become familiar with the actions and interactions of medicines.

The principles that underpin that education and clinical practice will equip the podiatrist to be a safe and competent prescriber by demonstrating the following:

18 See APPENDIX D
a) Promoting a high level of sound podiatric practice.

*Prescribing pharmaceuticals will not replace appropriate conservative podiatry care. Medicine therapy is designed to assist the patient by enhancing the treatment options of care being provide.*

b) Making an adequate assessment of the patient's condition, based on history and clinical signs.

*The patient’s treatment plan is based on a thorough medical history – including pertinent demographic and clinical information, subjective and objective examination, and a considered differential diagnosis. This will assist the podiatrist in selecting the appropriate medicines, doses and routes of administration. Having essential patient information at the time of prescribing, dispensing and administration of medicines will result in a significant decrease in preventable adverse drug reactions (ADRs).*

c) Having accurate and usable information about the various medicines available.

*Providing accurate and usable drug information to all health professionals involved in the medication use process reduces the amount of preventable ADRs. Drug information should be readily available through a multitude of sources (drug references, formulary, protocols, dosing scales…), it is also imperative that the drug information is up to date as well as accurate.*

d) Being able to communicate information about medication to other professionals.

*Miscommunication between clinicians and pharmacists is a common cause of medication errors. To minimize the amount of medication errors caused by miscommunication it is always important to verify drug information and eliminate communication barriers.*

e) Being able to recognise correctly various medicines by names, even when nomenclatures vary.

*Drug names that look-alike, sound-alike, may be confusing and significantly contribute to medication errors. The incidence of medication errors is reduced with the use of proper labelling and the use of unit dose systems.*

f) Knowing what medicine concentrations are appropriate.

*Standardising drug concentrations and limiting the dose concentration of drugs available to patients will reduce the risk of medication errors or minimise their consequences should an error occur.*

g) Taking suitable and prompt action when necessary.

*The taking and timing of correct treatment options must be the primary considerations for prescribing medications. This includes the need to refer the patient to another medical colleague for treatment or advice. This treatment or advice that is sought by the podiatrist should not be unreasonably withheld.*

h) Recognise and work within the limits of professional competence.
The quality of health care is determined by the practitioners ability to respect, cooperate and communicate with other members of the medical team, recognising personal and professional limits to competence.

i) Referring the patient to another practitioner, when indicated;

During the course of treatment the Podiatrist is required to refer the patient to another practitioner if the course of the treatment changes to a point where the Podiatrist is beyond his or her scope of practice. This is done at the earliest necessary point, and done in consideration of the best interests of the patient.

j) Keep clear, accurate and up to date patient records which report clinical findings and any medicines or treatment prescribed;

Accurately writing legible prescriptions and flagging the patient’s medical records to alert the practitioner to contraindications, allergies or previous medicine or treatment interactions.

k) Keep colleagues well informed when sharing care of patients;

The Podiatrist recognises that there is are many roles within the health care delivery system. It is to the benefit of the patient that other practitioners caring for the patient are kept informed of the treatment the podiatrist is prescribing. This will minimise the risk of incomplete, incompatible and unnecessary treatment.

l) Providing patients with accurate and up to date information about the medicines being prescribed.

Patients must receive ongoing education from clinicians and pharmacists about the brand and generic names of medications they are receiving, their indications, usual and actual doses, expected and possible adverse effects, drug or food interactions, and how to protect themselves from errors. Patients can play a vital role in preventing medication errors when they have been encouraged to ask questions and seek answers about their medications before drugs are dispensed at a pharmacy.

m) Pay due regard to efficacy and use of resources;

Whilst managing a course of pharmaceutical treatment, the Podiatrist will remain informed of the progress of the patient’s condition, and have due regard for the need to alter or cease the course of treatment as directed by the course of the patients condition.

n) Prescribe only the treatment or medicines that serve the patient’s needs;

The Podiatrist will prescribe only the medicines and treatment that is dictated by the state, severity and duration of the symptoms the patient is suffering, that which falls within the scope of practice of podiatry.
5. Reporting Adverse Reactions.

Prescribing podiatrists will be required to report all adverse clinical events occurring in patients to whom they have prescribed medicines from within the scope of practice and the limited formulary to the Medical Assessor, Centre for Adverse Reactions Monitoring, Medsafe NZ.

The Board will liaise with Medsafe quarterly, to determine if there are prescribing issues that the Board should address through the continuing competency programmes to advance the knowledge and skill of podiatric prescribers and ensure public safety.


The way to prevent errors is to redesign the systems and processes that lead to errors rather than focus on correcting the individuals who make errors. Effective strategies for reducing errors include making it difficult for clinicians to make an error and promote the detection and correction of errors before they reach a patient and cause harm.

7. Pharmacovigilance

Pharmacovigilance is the process of identifying and responding to medicine safety issues. The goal of the process is the safe use of medicines – this will be achieved by dissemination of accurate, timely and clinically relevant information. There are three bodies involved in pharmacovigilance activities in New Zealand;

Centre for Adverse Reactions Monitoring (CARM)

CARM receives reports of adverse reactions to medicines occurring within New Zealand.

Medicines Adverse Reactions Committee (MARC)

The MARC is a ministerial advisory committee which makes recommendations on appropriate action to be taken on medicine safety issues.

Medsafe

The role of Medsafe is to ensure that medicine safety issues are adequately dealt with in a timely fashion.

The Board works closely with CARM, MARC and Medsafe on pharmacovigilance issues, and ensures that any recommendations made by these bodies are disseminated promptly to registered podiatrists. The Board also responds, on behalf of the podiatrist profession, to queries from the media, medical practitioners and members of the public on such issues.

The Board also promotes the distribution and dissemination to the Podiatry profession of information from the following publications:
Data Sheets

Data sheets contain detailed prescribing information on a specific medicine. Such data sheets for all prescription medicines and restricted (pharmacist only) medicines are required to be prepared by pharmaceutical companies in accordance with the Medicines Regulations 1984 and regulatory guidelines published by Medsafe.

Prescriber Update Articles

Articles published in Prescriber Update, a publication of Medsafe.

Consumer Medicine Information

Consumer Medicine Information (CMI) is produced by pharmaceutical companies for medicines available in New Zealand.

CMI publications must be in accordance with the New Zealand Regulatory Guidelines for Medicines Volume 4: Consumer Medicine Information, published by Medsafe.

The Board recognises the right of consumers to have access to medicine information as endorsed in the Code of Health and Disability Services Consumers’ Rights and by health authorities worldwide.
APPENDIX G – RESPONSES TO CONSULTATION

The Board expresses its sincere appreciation to all those who responded to the Discussion Draft of this Submission. The full list of those sent the submission is at page 15 section 11 - Consultation.

Not all those sent the draft submission responded – the Board presumes they had no particular comment to make. Those who did respond, made a number of suggested corrections and improvements to the text which have been incorporated as appropriate. The many comments and suggestions made (apart from corrections and improvements) have been carefully considered by the Board and where agreed, have also been incorporated.

Other suggestions have been noted in this APPENDIX (with the respondent identified) together with the Board’s response. In some cases, respondents were contacted again before the Submission was finalised.

[Note: the format used in the following section is – first the Name and Organisation of the person commenting, followed by their comments, and finally, the Board’s response. The notation [S] after the named person indicates their support for the submission; the notation [NS] indicates their non-support. Where the person commenting has pointed out an error in the text, or suggested a better word or phrase, and the Board agrees, that has been changed in the main body of the submission without being included in this Appendix.]

Duncan Reid; [S]
Head of Division, Faculty of Health, Auckland University of Technology

"The Board has been clear that not all Podiatrists will have access to prescribing and have outlined a robust pathway of study following on from undergraduate degree programme to postgraduate diploma programme."

The Board believes that this will always be a postgraduate diploma level of knowledge and skills necessary to prescribe safely.

Jane Chilcott [S]
Commerce Commission

“Ultimately it is the Board’s responsibility to ensure the Submission complies with the Commerce Act.”

The Board believes the submission does comply with the Commerce Act.

Dr. Linda Lum [S]
Auckland Chinese Medical Association

"The consultative process is of concern and clearly not wide enough"

The Board extended the list of groups to be consulted, including the suggested 12 groups in this submission.
“No provision or mechanism has been established for a compulsory programme for the maintenance of standards of prescribing practice once the various papers are completed”

The Board has established continuing competence requirements for every Podiatrist who holds and maintains a scope of practice ‘Podiatric Prescriber’. The Board has also Podiatric Prescribing Guidelines.

"No requirement for training in basic life support or advanced life support."

Advanced life support is a mandatory requirement of Podiatrist who hold and maintains a scope of practice 'Podiatric Prescriber'. This is included in the Ongoing Re-Certification Framework for Re-registration in this scope of practice and is required to be updated every second year.

"What precautions are proposed for patients receiving sedatives?"

Podiatrists will be limited to a single dose per case, oral sedatives only, and will not permitted to prescribe sedatives on an ongoing basis.

"Issues of practice demarcation should be dealt with according to the BPCA"

The Board agrees. The Board has Gazetted Scopes of Practice for Podiatric Prescriber.

(See Clinical Prescribing Guidelines.)

"There is a here is a difficulty for Asians in general accessing health for a number of reasons including the bewildering choice and confusion of which health care providers to access."

The ACMA makes two points here. One is the confusion about who is caring for the patient. This will be limited by the Podiatrist not having to refer their patients to GP's for medicines and then being referred back to the Podiatrist for ongoing care. The second point relates to immigrants receiving a poor standard of care. The Podiatrists Board requires the demonstration of cultural competence in the training of Podiatrists and the AUT School of Podiatry. Several immigrants from Asian countries have graduated and several are completing the BHSc(POD).

Dr. Debra Graves, Chief Executive Officer  [NS]
The Royal College of Pathologists of Australasia

“The College does not believe podiatrists receive sufficient training to enable safe prescribing, particularly for medications such as oral anti-fungals, which are not approved for general practice use in New Zealand.”

The Board is disappointed that the College did not identify which areas of Undergraduate or Postgraduate training are inadequate. The Clinical Prescribing Guidelines indicate the safe prescribing of anti-fungals. The Board notes that the restrictions on GP's to prescribe medications such as terbinafine have been removed in the UK and USA.

Sarah Thomson [S]
Diabetes NZ

"Podiatrist should be suitably qualified to prescribe medication"

The Board agrees.
"Payment should be made to Podiatrists as service providers and not given to GP's."

The Board encourages Podiatrists to cooperate with GP's through the Primary Health Organisations, and access subsidies for patients in this way.

"GP's should be referring patients to Podiatrists for the specialist care of their feet."

The Board agrees.

**Sue Ineson**  
NZ Medical Council [Qualified Support]

"Uncertainty is expressed about the extension of prescribing rights especially if there are multiple prescribers for any one patient. The General Practitioner should be consulted especially in relation to the management of any chronic conditions or medicines to manage anxiety."

The Board agrees and will require consultation with general practitioners as outlined by the Clinical Prescribing Guidelines.

As to consultation, the Board's view is that Podiatrists should not attempt to usurp the responsibility of the General Practitioner, rather they should provide the necessary specialist care to the patient, respecting the safety of the patient and acting in support of the patient - doctor relationship.

**Raewyn Whitehead [NS]**  
NZ Medical Association

"NZMA has a policy of opposition to the introduction of autonomous prescribing rights to groups other than medical practitioners."

The Board does not agree with the NZMA policy. This illogically presupposes that no other profession could ever autonomously prescribe no matter what their level of education, knowledge and experience. Podiatrists have safely prescribed in other countries (UK, Australia, USA, and Canada). Podiatrist who have safely prescribed in other countries are currently working in NZ and are currently forbidden to prescribe. Midwives have safely prescribed in New Zealand for some time.

"There is also a major problem in respect of infective diagnosis. Successful diagnosis relies on laboratory confirmation of fungal involvement. This requires access to laboratory services which are not available to Podiatrists, nor do we believe they have the knowledge to accurately interpret such results."

The Board agrees that successful diagnosis relies on laboratory confirmation. It is for that reason that it has ensured this minimum competency is covered in the BHSoc Podiatry degree (where it has been included in the syllabus since 1989) and the Postgraduate Diploma prescribing pathway course at AUT. The NZMA is incorrect in saying that laboratory services are not available to Podiatrists or that they are incapable of interpreting pathology results accurately. Podiatrists have been accessing the services of pathology laboratories in NZ since 1989. They have also for the last 15 years, been receiving pathology reports and correctly interpreting them. However, Podiatrist's patients do not receive the Laboratory Services Subsidy and are charged full laboratory fees for this service. Despite this financial disincentive, for the last 15 years patients have still been willing to
consult Podiatrist for a diagnosis. The Board believes that should the responsibility for
prescribing medicines be extended to Podiatrists, the Laboratory Services Subsidy should
also be extended to patients of Podiatrists.

"Paragraph 2.9 of the submission states – 'granting Podiatrists extended prescribing rights
will improve patient care and safety'. The submission does not provide evidence to support
this."

Podiatrists are skilled practitioners capable of treating a wide range of foot pathology and
any delay in the commencement of that care compromises patient's safety and well-being.

"Granting of prescribing rights to groups outside of general practice carries a major risk that
continuity of care will be affected. General practice team provides a crucial coordinating role
within the primary care context. Further fragmentation of care would mean that patient's
general practices will not always be aware of care which has been provided nor drugs which
have been prescribed."

With regard to continuity of care, there are many groups outside general practice that
already have prescribing rights, e.g. Dentists, Optometrists, Midwives, Nurse Practitioners.
The NZMA has produced no evidence of 'major risk' by these practitioners leading to
deleterious outcomes for patients. The notion that all patients have one single repository of
primary medical care and medical records is fallacious. Patients shop around for GP
services in NZ. They consult many primary care practitioners depending on availability,
access, price and specialist interests of GP's. E.g. After Hours Medical Centres, GP
specialising in O and G, sports, children, acupuncture, mental health, relationship
counselling. Patients have a perfect right to choose to consult Podiatrists and in doing so are
not compromising their own well-being.

"We do not accept that the competencies and education outlined in Part 7 of the Submission
demonstrates that the competency and education of Podiatrists is equivalent to those of a
medical practitioner."

The BHSc Podiatry degree does not intend to educate a person to be a medical practitioner
it educates a person to be a Podiatrist.

"We do not accept that the addition of a Postgraduate Pharmacology qualification is
sufficient."

The Board's submission has recommended the Postgraduate Diploma – prescribing
pathway is of sufficient level and content to enable a Podiatrist to prescribe safely. We refute
the suggestion by the NZMA that it is not possible to educate any person to independently
prescribe other than a medical practitioner. The NZMA did not indicate which areas of the
Postgraduate qualification are deficient in its content or academic level for prescribing.

"... in terms of 'potential benefits', the statement suggesting that the blurring of professional
boundaries is a positive factor cannot be accepted. Surely one of the key objectives of the
HPCA Act was to reduce the inappropriate blurring of professional scopes of practice."

The Board does not agree that the granting of the responsibility to prescribe to Podiatrists is
a 'blurring' of professional responsibilities. The HPCA Act has required the definition of
scopes of practice and accepts that there will be overlapping of these scopes of practice by
one or more professions. The letter and spirit of the HPCA Act requires greater level of
interdisciplinary cooperation. The NZMA should refer to the received submission of the
Australian and new Zealand College of Anaesthetists which stated
"... (we) are pleased to note that excellent communication with other health professionals is a key part of your application ".

Also the submission received by the Health and Disability Commissioner said :

"I agree that there is a benefit to Podiatry patients in being able to obtain a prescription from the Podiatrist rather than having to be referred back to their GP"

"There is a substantial potential risk of inappropriate prescribing based on the likelihood of inadequate diagnosis of conditions which are outside the competence of Podiatrists to identify."

The Board has identified scopes of practice applicable to Podiatrists and the competencies to support these scopes. The NZMA has not produced any evidence of inadequate diagnosis by Podiatrists to date. We view this statement as little more that using the arguments of patient safety as protection against economic competition. We refer the NZMA to Right 4 of the Health & Disability Commissioner’s Code of Rights.

"The NZMA acknowledges that one meeting occurred with representatives of the Podiatry profession. However we are concerned that the impression may be gained from Part 10 of the document of widespread and detailed consultation. In the case of the NZMA this is not correct; there was one meeting at which the NZMA made it clear that we did not support the granting of autonomous prescribing rights to Podiatrists."

We note from the NZMA's submission that their views have not changed in light of the Draft Submission. However we note that other representative medical groups and individual medical practitioners who have participated in responses to the Draft Submission have not opposed the granting of prescription rights to Podiatrists. The Board’s view is that the NZMA made it quite clear that they did not support prescribing by Podiatrists in any shape or form.

"We note that in consultation document which we have received, Appendix G, RESPONSES TO CONSULTATION is blank".

This document was a draft sent out for the purposes of consultation.

Ron Patterson [S]
Health and Disability Commissioner

"This benefit does need to be balanced against the need to ensure that any medicines prescribed by Podiatrists do not adversely affect or interact with any other medicines that the patient may already be taking."

The Board Agrees and thanks the Commissioner for support of the concept of uninterrupted care of podiatric patients.

"Cooperation between Podiatrists and other health providers (particularly GP's) will therefore be a crucial requirement. The need for such cooperation is set out in Right 4 (5) of the Code, which states that "every consumer has a right to cooperation among providers to ensure quality and continuity of services".

The Board agrees. These Rights are well covered in the BHSc Podiatry Degree and reiterated in the Postgraduate Diploma - prescribing pathway. Appropriate referral to GP's and Specialists is identified in the Clinical Prescribing Guidelines.
Karen Guilliland [S]
NZ College of Midwives

“…(we are) impressed with the breadth and detail in the submission. The experience of the midwifery profession has enabled us to form the view that registered health practitioners who have a clearly defined scope of practice are able to confidently and safely prescribe the necessary medicines to address the health issues within their scope of practice. We have no doubt that this will also apply to Podiatrists.”

The Board agrees and thanks the College of Midwives for their submission.

Wayne McNe [S]
PHARMAC

“PHARMAC is supportive of any initiative that improves patient outcomes through improved access to pharmaceutical treatments.”

The Board agrees that the granting of prescribing rights to suitably qualified Podiatrists will achieve better outcomes for patients.

“We note from your draft submissions that some of the drugs you have listed as being ones Podiatrists would want to prescribe are not subsidised by PHARMAC. Therefore if Podiatrists do prescribe these agents then the patient would pay the full costs of treatment.”

The Board notes this important point and will examine medicines that are outside the Schedule with a view to making representations to the Government in conjunction with the NZ Society of Podiatrists. This matter falls outside the scope of interest of the New Prescribers Advisory Committee.

“Once Podiatrists have designated prescribing rights we can amend the definition of prescribers in the pharmaceutical schedule in the same way that we have done for nurses.”

We agree and note that there is an administrative precedent for the adding of new prescribers onto the Pharmaceutical Schedule.

Pharmaceutical Society of NZ [S]

“The Pharmaceutical Society supports your application, noting that it will be to treat conditions of the foot and lower limb:
- by using a select group of prescription and other medicines
- by appropriately trained and designated Podiatrists.”

The Board thanks the Society for its support.

[Several wording changes are suggested which have been incorporated into the main document.]

“Page 4 Section 2.9 – what is meant by subsidy? GMS or Pharmaceutical? Podiatrists prescribing will not reduce Pharmaceutical Subsidy payments.”

Section 2.9 refers to GMS subsidy payments which are generated when children or High Users are unnecessarilly referred to GP’s for prescriptions. This will not increase Pharmaceutical Subsidy payments but it is also important to emphasis that neither will Podiatrists prescribing increase the Pharmaceutical Subsidy Payments.
“Page 7 Section 6.19 (and page 30) note that there is only one prescription local anaesthetic that Podiatrists are permitted to prescribe. It is lignocaine, as described by the First Schedule of the Medicines Regulations 1984. All others such as prilocaine, ropivocaine and bipuvicaine are prescription medicines that do not have any exemption for use by Podiatrists.”

The Board is grateful for the Pharmaceutical Society pointing out this Regulation. It is not well understood by Podiatrists nor Pharmacists. The use of prilocaine, ropivocaine and bipuvicaine has been common practice in New Zealand for many years. This has been without incident or deleterious outcome for any patient. All local anaesthetic medicines are supplied to podiatrists through pharmacies. This is clearly a case of practice becoming common and widely accepted by both pharmacists and podiatrists. Granting podiatrists the responsibility for prescribing a wider range of medicines, will align common usage with the Medicines Regulations. [See this addition made to para 6.19.]

“What is the purpose of Properties column on page 30ff and the References of Clinical Efficacy on page 31 – 76?”

Both provide clinical evidence and demonstrate the need for prescribing giving examples of the conditions Podiatrists actually manage.

“Page 57 gives a course description. What is the class contact time?”

This is an "on line" course with face to face tutorials available to the student throughout the semester. All the learning outcomes are assessed and all must be met to pass the paper. There are no "hours" as such assigned to the paper. The students take full responsibility for their learning at this level. Some students will achieve the learning outcomes faster than others. All learning outcomes must be achieved within the 16 weeks of the semester.

"We agree with the post-graduate prescribing pathway papers described on page 85, so long as they are of sufficient depth to achieve the learning outcomes stated." The Board agrees.

"Page 98 – a Podiatric Prescriber will not be licensed with Medsafe "

Noted. The Board will issue a scope of practice for podiatric prescribers. The submission has been changed accordingly.

"No mention is made in the document of … training of the prescription of non-prescription medicines … “

The training of Podiatrists in the prescription of non-prescription medicines is done in the BHSc Podiatry undergraduate degree. The AUT has a strong interest in providing courses for continuing competency and will include refresher courses for practitioners in this area. It is expected the AUT will enlist the help of the Pharmaceutical Society for this purpose.

"… is there any expectation that prescribed medicines listed on the Pharmaceutical Schedule will be eligible for a pharmaceutical subsidy."

The Board believes that if Podiatrists are granted the right to prescribe medicines to their patients, who would otherwise attract a Pharmaceutical Benefit if that medicine was prescribed by a doctor, dentist, optometrist, nurse or midwife, no discrimination by withholding the subsidy should be applied to podiatric patients.
A section has been included in the submission on Pharmaceutical Subsidy applying to patients of Podiatrists.

Valerie Wright-St.Clair [S]
School of Occupational Therapy
Auckland University of Technology

"The proposed prescribing parameters and indicative medicines list are supported as being within the domain of concern of Podiatrists. The case illustrations provide good justification for the scope of practice to include prescribing rights."

The Board agrees, and thanks MS Wright-St.Clair for her support.

"Rather than restricting eligibility for entry to the post basic qualification programme to currently registered Podiatrists with 3 years clinical experience, the Board may consider the option of the practitioner undergoing a competency audit"

Noted. This is an excellent suggestion and Section 7.6 (page 8) has been re-written to include this suggestion:

Clare Van de Lern, [Not Stated – Conditional Support assumed from comments.]
Medsafe (NZ Medicines and Medical Devices Safety Authority)

"Reference is made to the use of emergency medication to treat anaphylactic shock for injectable local analgesic agents (Page 27). But no medicine is listed in Appendix C to treat anaphylactic shock."

Noted. These medicines have now been included.

"Diazepam and Codeine are both controlled drugs and as such the Misuse of Drugs Legislation applies to them."

Noted. The Board is aware of this legislation and requires an understanding of the legislation as a learning outcome in the postgraduate diploma prescribing pathway.

"The prescribing and use of diazepam is currently under review."

Noted.

"Antibiotic resistance"

Noted. The Board requires that podiatric prescribers take all appropriate steps to minimise the problem of antibiotic resistance in their prescribing. (Note the Clinical Prescribing Guidelines.)

"Guidelines for when a patient should be referred to their General Practitioner."

"Liaison by the Podiatrist with the patients other health care providers."

Both points noted. (Refer to Clinical Prescribing Guidelines).
Janice Meuler. [S]
Auckland District Health Board. (ADHB)

"In principle, the ADHB supports the concepts outlined in the paper."

The Boards thanks the ADHB for its support.

"There were some initial concerns that Podiatrists wish to having prescribing rights (particularly for those Podiatrists working without the benefit of an interdisciplinary team environment) albeit for a specific, identified group of medicines".

Noted. However, see following comment.

"Extending prescribing rights for health practitioners opens the sector to other health professionals to work more fully within a defined scope of practice and is in part the intention of the HPCA Act (2003)"

The Board agrees and looks forward to that intention being more fully implemented.

"There would need to be a supervisory advisory clinician so that Podiatrists are not working in professional or discipline specific isolation."

Noted. The undergraduate and postgraduate education of Podiatrists requires Podiatrists to demonstrate that they can work collegially and in interdisciplinary teams. Podiatrists who work in sole private practices are required under the Continuing competence under the HPCA Act (2003) to demonstrate competence annually. This Clinical Prescribing Guidelines require Prescribing Podiatrists to establish collegial links and peer support networks among Podiatrists and General Practitioners.

"Clear policies regarding prescribing will be required including referral criteria."

The Board agrees and has developed the Clinical Prescribing Guidelines for that purpose.

"Antibiotic use would have to be from a limited recommended list and for a limited time e.g. single prescription course only with further antibiotics requiring review by a registered medical practitioner."

The Board partly agrees. The Board will establish a limited formulary which Podiatrists who hold a scope of practice of Podiatric Prescriber would be permitted to prescribe.

However the Board does not agree that Podiatrists should be limited to prescribing a single prescription course. The Clinical Prescribing Guidelines dictate very clearly the protocols to be followed for repeated prescriptions of medicines and when a referral is indicated to a medical practitioner.

"NSAIDs are more complex and would require knowledge of renal function which needs to be covered in the postgraduate training."

The Board agrees and has done so.

"Most drugs should only be available for a limited time."

The appropriate length of prescription course for podiatric conditions is indicated ion the Clinical Prescribing Guidelines".
"The completion of a PG Diploma in Health Science with a minimum of three years post basic clinical experience appear to be suitable educational barriers for Podiatrists to undertake prior to being granted extended prescribing rights as a restricted activity under the HPCA Act (S9)."

The Board agrees.

'The legislation for new prescribers needs to be the basis for any decisions as it is moving away from a formulary approach towards the regulatory authority identifying what pharmaceuticals / therapies are appropriate within a health practitioner's scope of practice."

The Board agrees and supports the Government’s change to the legislation.

"Depending on what the scope of practice is, and how the legislation is implemented, health practitioners that complete the appropriate qualification can prescribe without a supervisory clinician. That approach is not supported, particularly by nurses."

The Board believes that once a practitioner have attained the appropriate qualification from an approved NZ University (or recognised equivalent overseas educational provider) that the practitioner is indeed qualified to provide this type of medical care.

The Board also believes that under the scope of practice 'Podiatric Prescriber' audit, and demonstrated continuing competence to prescribe medicines is also essential. For this reason the Board has designed Clinical Prescribing Guidelines and instituted an audit for re-registration of this scope of practice.

"The Podiatrists are to be commended for moving away from Lignocaine to prilocaine. They should remain with this option and not use Ropivocaine 1 % as this does introduce another level of complexity to managing overdose / anaphylaxis. There could be a restriction on the volume used, which might be sufficient to ensure a degree of safety."

"Sedatives should only be prescribed for oral use and for the ‘treatment episode’ only i.e. not ongoing care. Presumably arrangements would be put in place for the patients not to drive."

The Board agrees. The Clinical Prescribing Guidelines will include these two points.

"There would also need to be some training having occurred for emergency resuscitation and also the appropriate equipment available".

The Board agrees. Regular updates of advanced life support will be required for practitioners to re-register with the Podiatric Prescriber scope of practice.

Kay Nagy
Mid-Central District Health Board

"The application would have been well supported by the inclusion of Professor Shaw's report on Prescribing Rights for Podiatrists : Prescribing Rights in New Zealand: a public discussion paper (Shaw, John P -Wellington, Ministry of Health, 1994) : (page 8) Professor Shaw states that Podiatrists have a better case than any other health professional for additional prescribing rights."

The Board agrees and has included a reference accordingly.
“19 (page 24) - include osseous procedures but are not able to provide full after care ... because they are unlicensed to prescribe some appropriate drugs for after care independently.”

Noted. Document has been amended to read “…because they are unlicensed to prescribe some appropriate medicines for after care independently.”

‘24 (page 25) That the preoperative screening include: Allergies and informed consent of planned treatment.”

Noted. The Submission has been amended to include in the list review:

“(f) review of allergies; and
(k) informed consent.”

”35 (page 27) to add “Often opportunistic Bacteria infect a purely fungal wound, making an easily controllable infection painful, and often dangerous in at risk cases, and General Medical Services costly.”

Agreed, The Submission has been amended accordingly.

“Page 63 - It could be questioned the relevance of the need to complete papers PG588623 and PG599664 based on their relevance to prescribing rights. This may need further clarification. Difficult to understand why research methods papers on Professional Practice should be necessary in preparation for a Diploma in Health Sciences that is designed to meet a demand for prescribing rights.”

The Board does not agree. The Professional Practice paper develops at postgraduate level the skills of critical thinking from a personal, inter-professional and bicultural perspective. The Clinical Prescribing Guidelines are predicated on critical thinking and negotiation skills especially with members of the medical and nursing professions. Practice Reality is a paper that develops the complex nature of choices made by practitioners and patients. This philosophical approach well prepares a practitioner for the complexities of prescribing in the complex bicultural NZ setting.

“Page 63 - It could be questioned the relevance of the need to complete papers PG588631 and PG588639 based on their relevance to prescribing rights. This may need further clarification. Difficult to understand why research methods papers should be necessary in preparation for a Diploma in Health Sciences that is designed to meet a demand for prescribing rights.”

The Board does not agree. Research Methods is a subject not generally well understood by Podiatrists (Based on the CIT Diploma and BHSc Podiatry Degree) This paper develops knowledge and skills at postgraduate level to critically evaluate both quantitative and qualitative research. The Board believes it is essential to develop a critical research culture among podiatric prescribers going forward.

‘From an organisational perspective, there will be associated costs relating to providing support for ongoing professional development. This is not identified as a potential risk and may be relevant to a District Health Board (DHB) employee and the allocation of Continuing Medical Education (CME)”

The Board does not agree. All Podiatrists who wish to hold the scope of practice of Podiatric
Prescriber will need to assure competence annually. The costs of maintaining competence are not a risk to the Podiatrists Board. The payment of CME is a matter for a DHB to discuss with its staff.

Dr. John Delahunt [S]
Wellington and Capital Coast Health District Health Board

"Efficiency of management is relevant: some conditions, such as infections, would be better treated immediately than subject to delay. However they should be assessed properly with radiology (as P6, 6.2), swabs, haematology, renal function."

The Board agrees. These elements of assessment of a patient for pharmaceutical prescription have been included in to the Clinical Prescribing Guidelines. The submission has been amended accordingly.

"If prescribing rights were to be approved, Podiatrists should be expected to have the training which would allow relevant utilisation of investigations and appropriate access to tests. This would include general biochemistry, microbiology and general radiology, but also more advanced techniques such as ultrasound, NW and CT scanning."

The Board agrees. The BHSc Podiatry deals at length with theory and practice of radiological imaging and developing an understanding of the indications, implications and diagnostic reporting of MRI and CT scanning. The Postgraduate Diploma in Health Science prescribing pathway has included review and practice of these subjects. The indications for these investigations are also included in the clinical Prescribing Guidelines.

"An appropriate assessment of the patients general health is an integral part of prescribing. Podiatrists will need the skills to know when to investigate before prescribing and how to monitor the effects of medication on other medical conditions and organ systems. If Podiatrists have prescribing skills they could also be supervising a patients progress independent of a medical review. Whether they have sufficient skill will depend on the rigor of the training courses in pathophysiology, general medicine and pharmacology."

The Board agrees. The Board believes the training courses designed to educate a Podiatrists to effectively diagnose and prescribe are of sufficient academic and practical level of complexity to achieve this ends.

The relevant sections in training are the papers in Clinical Decision Making (PG 588580) and Integrated Practicum Prescribing (PG 588676). These assume an adequate prior knowledge of general medicine and pathophysiology from the undergraduate course in Podiatry. Given the undergraduate course was not developed with a prescribing objective (and given the need to be able to assess a patient's progress or drug interaction in the light of various general medical conditions) approval for prescribing would need to confirm a satisfactory, (and broadly based), core knowledge in general medicine. It should not simply demonstrate an appropriate skill in researching and determining clinical scenarios, as might be developed from a limited number of indicative case exercises, or be restricted to common podiatry conditions."

The Board agrees and thanks Dr. Delahunt for the advice. The new undergraduate programme BHSc Podiatry at AUT has included an improved level of core knowledge in medicine and pharmacology with the intention of preparing graduates for on going study to achieve the learning outcomes that Dr. Delahunt has described. The AUT School of Podiatry has employed a physician part time (Dr Tongue) as a Clinical Educator who is registered with the NZ Medical Council. Dr Tongue’s role is to assist the undergraduate students to achieve a greater understanding of the medical issues facing podiatry patients they are...
encountering in the Clinical Practice Papers in Year III. The undergraduate students are also treating patients on the Wards of North Shore Hospital in the multi-disciplinary environment which advances their learning in medicine and surgery.

"The papers, as described, may develop core skills but may not provide a sufficiently broad base as to allow safe practice in patients with a range of general medical conditions."

The Board has limited prescribing to relevant and common Podiatry conditions and the medicines need to support therapy for these conditions.

"(6.11, 6.13, APPENDIX B, 16d) A prescription consultation should require the GP to see the patient not simply write a prescription, and as such is a desirable professional liaison. This implies it is desirable for Podiatrists whose practice includes complicated medical patients to work as part of a professional team, with a facilitated access to a doctor for a general assessment, as well as being available for consultation from Nurse Practitioners and GP’s on specific podiatry problems. Referrals should include the appropriate clinical detail to facilitate an informed assessment."

The Board agrees and this is why the Clinical Prescribing Guidelines indicate when a referral to a medical practitioner is indicated and should be made to allow for the medical practitioner to agree with or alter the treatment in light of the wider general medical knowledge of the patient.

"(9.6, 9.10) The less serious conditions in podiatry should not require prescribing rights. We would hope Podiatrists have skills which are more than just equal to those of most GP’s in dealing with foot problems"

The Board agrees and believes that the skill of a Podiatrist (especially one who has completed the PGDip prescribing pathway or a Masters in Health Science or Masters in Health Practice) would be considerably greater than most GP’s when dealing with foot problems. This is not to imply that GP’s are in some way inadequate in dealing with foot problems. Podiatrists have specialised in these conditions and are able to offer the patient considerable specific experience in diagnosis and management of their foot problems.

Michael Bradfield [S]
Otago District Health Board

"The overall impression gained from submission is that if extended prescribing authority is granted to registered Podiatrists this will improve both the scope and timeliness of health interventions to those effected by conditions of the foot and lower limb, with consistent improvements in the general health of those affected. This is consistent with the strategic and other priorities of the Otago DHB."

"The Risks and Benefits / Cost Utilisation section appears sound and risks appear adequately mitigated by training, research and reported ethical practice."

"Accordingly, Otago District Health Board support extended prescribing authority being granted to registered Podiatrists."

The above comments are noted and the Board thanks ODHB for their support.
Mary Bonner [S]
Waikato District Health Board.

"In principle Health Waikato supports the Submission, noting the training Podiatrists undertake in both pharmacology and pathology relating to the foot. It is therefore essential this group of Health Professionals are able to prescribe antibiotics, NSAID’s, local anaesthetic and intra-articular steroids. However, appropriate awareness of contraindications in diabetic patients to prescription of NSAID’s and intra-articular steroids must be covered in the curriculum."

The Board agrees and that will be done.

Cathy Webster [N/A]
The Royal New Zealand College of General Practitioners

"The College is currently looking into the practical ramifications of the Health Practitioners Competence Assurance Act 2003, including the impact of the scopes of practice sections on general practice. As a result it has not yet determined a stance in this area, but hopes to in the near future."

Noted.

Dr. Peter Cooke [S]
Australian and New Zealand College of Anaesthetists

'We note that your application includes clinical indications for two local anaesthetic drugs, Prilocaine and Ropivacaine in a number of strengths and presentations. Can you confirm that Podiatrists would use these drugs for infiltration anaesthesia and nerve blocks around the ankle only."

The Board can confirm that Prilocaine and Ropivacaine would only be permitted to be used for infiltration anaesthesia and nerve blocks around the ankle.

"We note that the application seeks only prescribe a wide range of oral analgesics, antibiotics, an anxiolitic and two injectable steroids. Many of these drugs can have unwanted effects that can be severe."

The Board agrees. This is reflected in the training of Podiatrists in both the undergraduate pharmacology and general medicine subjects and in the Postgraduate Diploma pathway to prescribing.

"We would advocate caution with these drugs and are pleased to note the excellent communication with other health professionals is a key part of your application."

The Board agrees.

"On page 26 we note the statement that:

"Podiatrists do not administer general anaesthetic themselves, nor do they wish to do so ".

This is coupled with a comment that:
"Podiatrists do however, still require access to surgical facilities which provide the option of using general anaesthesia administered by an anaesthetist? ANZCA is pleased to note that your Board acknowledges an anaesthetist is the appropriate professional to provide general anaesthesia when required."

Noted. The Board agrees that Anaesthetists are the only health professional that Podiatrists will be permitted to work with to provide general anaesthetic care for their patients.

"When a patient undergoing podiatric treatment receives anaesthetic care from an anaesthetist, this raises the responsibility for patient care. It is the College's view that in these circumstances the responsibility for the patient would be shared with the Podiatrist responsible for podiatric aspects of patient care, and the anaesthetist responsible for both the anaesthetic and other more general aspects of care."

The Board thanks the ANZCA for their clear statement of the delineations of responsibilities in regard to general anaesthetic care. This division of responsibilities has occurred for many years between anaesthetists and Podiatrists in the operating theatre in ad hoc arrangements. The Board is therefore grateful for the clarification from the college.

Gerard McGreevy [S]
Accident Compensation Corporation

"We feel that the prescribing of antibiotics, anti-inflammatories will not impact on the work carried out by Podiatrists for ACC, and commend the Podiatrists at advancing their scope of practice."

Noted.

Pauline Portier [S]
PodiatristsBoard of Queensland (Australia)

"Point 4, page 55: Placing an entry restriction of Bachelor of Health Science (Pod) for entry into the Postgraduate Diploma in Health Science will disadvantage the older population of Podiatrists who have been practicing for many years but have not undertaken formal further education."

The entry criteria for each applicant into the Postgraduate Diploma in Health Science is determined by the Associate Dean, Postgraduate, of the AUT. The Associate Dean is able to consider recognition of formal prior learning and recognition of informal prior learning and experience. This is done on a case by case basis to determine if the applicant is capable of studying at Postgraduate level. The School of Podiatry is offering a considerable number of ‘catch-up’ courses delivered regionally in 2005 to assist Podiatrists staircase their knowledge and test their ability to study at Postgraduate level. These may still be Podiatrists who are not willing or able to attain this standard and unfortunately the scope of Podiatric Prescriber may remain beyond their reach.

"Will there be strategies in place for this cohort to upgrade their qualifications or enter the Postgraduate Diploma without the Bachelors Degree?"

Yes. As explained above.

Dr. Nigel Millar [Conditional Support]
Canterbury District Health Board

"Overall, as a DHB, we have concerns about the breadth of the prescribing rights requested,
and would expect that it would be limited to a smaller range of drugs with very short term usage only. In particular, the non-steroidal anti-inflammatory drugs appear to be a major risk and probably of minor benefit. Use of diazepam seems unnecessary."

The Boards notes the comments relating to the prescription of NSAID's, as it has noted also from other submitters. The Clinical Prescribing Guidelines set out clearly the safe practice of the use of these medicines. The Board does not agree that NSAID's are unnecessary in Podiatry practice. This Submission outlines the podiatric conditions for which NSAID's are currently being prescribed by a GP. Evidence of their use in Podiatry is also included. Diazepam is occasionally required to ameliorate the anxiety of local anaesthetic administration particularly in the plantar surface of the foot, often considered by medical practitioners the most painful region to anaesthetise. Podiatrists do not wish to treat depressive illness in their patients. The Clinical Prescribing Guidelines recommend referral to the patient's GP for this type of care.

"In summary, we have significant reservations about this proposal and believe that there may be a role for Podiatrist initiation on a very limited number of medications but that this would best be done as part of a team approach involving the full knowledge and support of medical staff with agreed and defined protocols."

The Board agrees. The submission is limited to the medications to treat only the conditions for which patients present with to Podiatrists. It is expected that Podiatrists working in a hospital environment will work collegially with other medical staff in relation prescribing issues as they have done for many years on other patient management issues. Under these circumstances it may not be necessary for suitably qualified Podiatrists to prescribe very often at all, however there may be instances where it is in the best interests for the Podiatrist to do so.

Dr. Peter Moore [S]
Canterbury District Health Board

"I think it would be very appropriate for appropriately trained Podiatrists to be able to prescribe antibiotics, as suggested in the document."

The Board agrees.

"I would have marked reservations about extending that prescribing right to non-steroidal anti-inflammatory drugs; particularly as patients are often elderly and the Podiatrist is unlikely to have information about the patient's renal function."

The Board agrees with the concerns expressed as have other submitters. This matter is dealt with in the Clinical Prescribing Guidelines. The Board does not agree however that Podiatrists would not take an adequate medical history of an elderly patient and identify the risk of kidney disease. Podiatrists have often made provisional diagnoses to GP's of impaired renal function by identifying signs and symptoms in the lower legs and feet. Prescribing Podiatrists will exercise extreme caution in this group of patients and the Guidelines require consultation with the patients GP in the instance of a NSAID being required to treat acute inflammatory episode.

I was in two minds when it came to prescribing terbinafine, given the predisposition of antifungal agents to have significant interactions with other medications. I think, on balance, it would be reasonable for Podiatrists to have this available for prescription, having paid careful attention to the need to determine what other medications the patient is taking."

"If diazepam is to be added to the list of medications they are able to prescribe, it should be only for a small quantity, for use prior to a surgical procedure and I should be interested in
the opinion from an anaesthetist as to whether a shorter acting benzodiazepine would be better for this indication."

The Board agrees with the above comments.

(The question has been referred to Dr. Peter Cooke, Chair of the New Zealand Committee of the Australian and New Zealand College of Anaesthetists for an opinion.)

**Prof. Evan Begg [NS]**  
**Canterbury District Health Board**

"... I do not support this proposal ... I believe that the ordinary medical course (usually of six years duration) only just begins to form an adequate basis for prescribing, and therefore any shorter courses are by definition inadequate for this."

This statement is at odds with the Medical Council’s view and several medical colleagues of Prof. Begg. Other health professions have prescribed in NZ with sufficient education and checks and balances to ensure public safety. Unfortunately, Dr. Begg did not indicate which aspects of the Postgraduate Diploma prescribing pathway were inadequate.

“It is not sufficient just to have a limited pharmacopoeia. This is because many patients on multiple medications including those that are not directly related to podiatry. It is impossible to prescribe a medicine in isolation without taking into account all other co-morbidities and drug interactions. The detailed knowledge to prescribe for example terbinafine or metronidazole is enormous, because these drugs are metabolised in complex pathways which are subject to many interactions and indeed pharmacogenitic influences.”

The Board is of the view that it is possible for a practitioner to be educated in these subjects, as has been demonstrated by Midwives, Nurse Practitioners, Optometrists and soon Podiatrists.

"As a Clinical Pharmacologist, I am continually made aware of how difficult it is for even specialist doctors to keep up with the whole broad field of pharmacology. Therefore it is an unreasonable and impossible ask for someone less qualified to achieve the same standard."

It appears that Prof. Begg presupposes that any medical practitioner other than a medical specialist shouldn't be prescribing either. Presumably this includes GP’s. The Board rejects this notion.

"I have been an opponent of midwife prescribing, and nurse prescribing, for the same reasons"

Whilst the Health and Disability Commissioner does not report complaints of inappropriate use of medications specifically, over all there were 165 complaints referred from the Medical Council to the HDC in the past 3 years. The Podiatrists Board has referred 2 complaints to the HDC in the last 3 years. This is clear evidence that Podiatry is a very responsible profession that holds the standards of practice and the need to work within the limitations of Podiatry in high regard. It is reasonable that this outstanding record of service to the health sector will continue when podiatrists gain the scope of practice as a Podiatric Prescriber.

"Just because an airline steward knows how to open the aeroplane door, does not mean that he or she can fly the aeroplane."
The Board views this statement as disappointing. The NZ Medical Council, the Health and Disability Commissioner, the Australian and New Zealand College of Anaesthetists and many other medical and non medical submitters to this proposal, have emphasised the necessity of a high level of interdisciplinary communication and cooperation. The Board also believes this is in the best interests of the patients.

**Paul Barrett, Pharmacy Manager.** [Not stated]
**Christchurch Hospital Pharmacy**
**Canterbury District Health Board**

‘Training for prescribing seems quite minimal when compared to that required for doctors, dentists and midwives.”

Podiatrists are not trained to be doctors, dentists or midwives. The Board believes the postgraduate diploma is sufficient training in the limited formulary. In fact midwives receive prescribing rights with a great deal less time in training than that which is proposed for podiatrists. In a telephone discussion with G. Coyle (Board Member) Paul Barrett admitted that he personally was impressed with the high level of training proposed. This submission was a representation of a few individual pharmacists who are employed by the CDHB.

“There are concerns about ensuring GP’s are kept informed about prescribing treatments.”

The Board believes that prescribing Podiatrists will keep GP’s informed about prescribing treatments. See the Prescribing Clinical Guidelines.

“Patients enrolled in PHOs would end up paying more for prescription medicines prescribed by Podiatrists, unless Podiatrists were included in PHOs.”

Podiatrists are included in many PHO's.

“There are concerns about inappropriate length of treatment of antibiotics and pain relief in particular.”

The length of antibiotic treatment is outlined in the Prescribing Clinical Guidelines. Podiatrists prescribe pain relief of OTC medicines at present. There is no evidence of concern at the moment, why should there be a concern if the range of medicines to be prescribed is added to? Paul Barrett admitted that he had no evidence that Podiatrists were inappropriately prescribing currently.

“There is too much choice of antibiotics, some of them difficult agents in terms of interactions, adverse reactions etc. There should definitely be a requirement for confirmatory swabs to be taken, rather than allowing purely empiric treatment.”

The Board agrees.

“Mupirocin (Bactroban) ointment should be restricted as an agent for MRSA patients. We would actively discourage routine use in the community.”

The Board agrees. Refer to the Prescribing Clinical Guidelines.

“Terbinafine is not subsidised unless recommended by a specialist. Unless Podiatrists have Specialist rights, their patients will have to pay full cost for this medication. With the normal length of treatment this could be prohibitive for patients.”

The Board agrees.
“Panadeine / Codeine should be restricted to one day’s treatment if required at all.”

The Board does not agree. Podiatrists are prescribing these medicines safely currently. The patient needs to be prescribed and adequate level and length of pain relief. This may extend beyond one day. It is accepted that long run analgesia is also contraindicated.

**Beryl Anderson (National President) & Catherine Gurnsey (Convenor, Health Standing Committee) [Both Support]**

**National Council of Women of NZ**

“Most respondents were concerned about the attempt of yet another group to take over the role of GP’s as primary care givers.”

The Board notes the view expressed, but does not agree. There is nothing in the submission indicating that Podiatrists wish to take over the role of GP’s. Podiatrists in NZ have been primary care givers for almost 80 years, perhaps the NCWNZ are not aware of this fact.

“NCWNZ is particularly concerned that here is yet another group of health professionals wanting to prescribe. It would appear that it is hard enough to control the effects of over prescribing of antibiotics, steroids for example, especially as there are already substantial recorded problems caused by their overuse.”

If there is a significant problem with over prescribing of medications at present, the blame for this could hardly be laid at the door of Podiatrists who do not prescribe at the moment. Perhaps the NCWNZ should mount a campaign to the Government to improve the clinical decision making and prescribing behaviour of doctors who have created this alleged situation. The Board believes that no more antibiotics will be prescribed in NZ as a result of this submission. Rather Podiatrists will prescribe, instead of sending their patients to a doctor. It is entirely possible that if the right to prescribe is given to suitably educated and qualified Podiatrists the medicines the NCWNZ say are being abused at present, they will value this right to a greater extent than the current prescribers.

“It was noted that antidepressants may already have been prescribed for the patient and therefore the use of diazepam might be inappropriate.”

The Board agrees. This is dealt with in the Clinical Prescribing Guidelines.

“Codeine in high doses may present risks.”

OTS preparations of Codeine have been prescribed by Podiatrists for a great many years. There is no evidence of Podiatrists mis-prescribing the medication. Why would there be any mis-prescribing in the future.

“Diclofinac can cause gastric problems and when a Podiatrist is not aware that there is a pre-existing condition the patient will need to be referred back to the GP for remedial treatment.”

The Board disagrees. The Podiatrist takes a through medical and surgical history with every patient.

“Respondents had some sympathy for the rationale presented in this document for the drug prescription and thought the rationale presented in this document for drug prescription and thought it was justified and reasonable in intent.”
Noted.

"It appears practical for Podiatrists to be able to prescribe within their scope of practice, providing that adequate pharmacology training is given and those granted prescribing rights qualify as set out."

The Board agrees.

"It was noted that Podiatrists may be able to assess general good health and they may be able to identify some conditions e.g. diabetes, heart failure etc. However, there are many conditions they will not be able to diagnose and for this reason respondents felt it vital that the Podiatrist discuss treatment options with the patient's GP."

The Board agrees. These instances are outlined in the Clinical Prescribing Guidelines.

"Concern was expressed that there is no mention of how frequent educational updates should be, once a practitioner has been granted prescribing rights."

Under the HPCA (2003) all Podiatrists who apply for issuing or renewal of a scope of practice 'Podiatric Prescriber' will have to provide evidence of continued competence to the Board before the Board issues an annual practicing certificate enabling the podiatrist to prescribe or continue to prescribe.

"NCWM applauds the idea of reducing costs to the patient and of the point made elsewhere about the break in time between consultations and when there is a need for the control of infection. However, costs must not be reduced at the expense of a patient safety or privacy. Likewise convenience, should podiatrists prescribe medication, must not be allowed to impact on patient safety or privacy."

The Board agrees and thanks the NCWNZ for their support.

**Phillipa Bascand, Executive Officer [S]**

NZ Society of Anaesthetists (Inc.)

"We wish to record our support for the position conveyed in Dr. Peter Cooke's letter as Chair of the National Committee of the ANZCA to your Board."

Noted.

"We note you seek to be able to prescribe local anaesthetic drugs in various strengths. The Society is concerned that your Board recognise that local anaesthetic medicines can be dangerous and can result in severe adverse outcomes for any patient, and that subsequent to such reactions immediate advanced cardio-pulmonary resuscitation may be required."

The Board agrees and thanks the Society for their advice. Advanced life support training is part of the curriculum for all Podiatrists who hold the scope of practice of 'Podiatric Prescriber.'

"In line with this position, the Society considers that general and regional anaesthesia must always be prescribed and administered by a registered medical specialist."

The Board agrees. No Podiatrist will be permitted to operate on a patient under general or regional anaesthetic which has been provided by any practitioner other than a registered Anaesthetist.
“Your application begs, for us, the question of whether all Podiatrists will have in place adequate monitoring provisions to detect and to appropriately treat such adverse events.”

Currently Podiatrists are providing local anaesthetic treatment much the same as Dentists and GP’s. Under the new HPCA (2003) the Podiatrists applying for registration and re-registration of scope of practice as ‘Podiatrist’ will be required to assure competence. The Board is paying particular attention to the area of basic and advanced life support and requiring Podiatrists to demonstrate continuing competence in this area by submitting a portfolio of ongoing training. Podiatrists who are applying for the scope of practice of ‘Podiatric Prescriber’ will have advanced qualifications and will also have to assure competence in the area of advanced life support.

“We wish to be advised weather your Board anticipates implementing incident monitoring of adverse outcomes or omissions as a result of prescribing, as one mechanism of ensuring patient safety.”

Yes. The Board will keep a register of adverse reactions which will be required to be reported to the Board by all Podiatrists who hold the scope of practice of ‘Podiatric Prescriber’.

Margaret Horsburgh Assoc. Prof. [Support or Not - Not Applicable] New Prescribers Advisory Committee

“Parts of the draft application are very comprehensive, but there are areas of the application that would benefit from providing further detail." 

The Board thanks the NPAC for this advice.

“In relation to competencies and education, the Board's application needs to address all the stated areas in the New Prescribers Committee's application form at both the undergraduate and postgraduate level (ie, all the issues listed under clinical skills, assessment process, prescribing process and monitoring process. The New Prescribers Advisory Committee need to be convinced that all the requirements have been met.”

Noted. Sections have been added to the document.

"On the basis of the course outlines provided, it is not clear how much time is spent on medicines and the prescribing process in the undergraduate degree in comparison to the postgraduate diploma. It is also not clear whether an assessment of competence on the basis of written assessments would be adequate to assess the practicalities of prescribing.”

"The Board indicates on page 9 under 8.3, that the Health Practitioners Competence Assurance Act (2003) it will have appropriate powers to assess and monitor the ongoing competence of all practitioners, and has yet to develop a monitoring regime to address issues likely to arise as a result of the extension of intends to meet the Government's decision that it will be responsible for maintaining lists of generic classes of medicines and any exclusions for Podiatrists Prescribing Scope of Practice, how it will assess the need for any clinical guidelines, and how it will monitor prescribing practice.”

The Board is about to publish the Re-Certification Framework which deals with the ongoing monitoring of practitioner competence. The Board will also establishing the Podiatric Prescriber Audit Committee – a Committee of the Board. (The composition of the Committee is set out elsewhere.) The purpose of the committee will be to approve the Clinical
Prescribing Guidelines and update and distribute them from time to time, to examine the submitted portfolios of each practitioner applying for registration or re-registration of the scope of practice ‘Podiatric Prescriber’. This portfolio will include evidence of updating of knowledge and skill in the scope from courses attended, conferences or other educational enrolments relative to the competence of the scope. The Podiatric Prescriber Audit Committee will also be responsible for recommending to the Board the generic classes of medicines each holder of the scope will be permitted to prescribe. This list of Podiatric Prescribers and the list of generic classes of medicines will be maintained by the Board and updated annually.

"The consultation section lists those organisations and people who were consulted. It needs to go further than this and explain what consultation process was used, what the results of the consultation process were (ie an analysis of the submissions and the key issues raised), and how any issues raised as part of the consultation process have been addressed."

See the introduction to this Appendix.