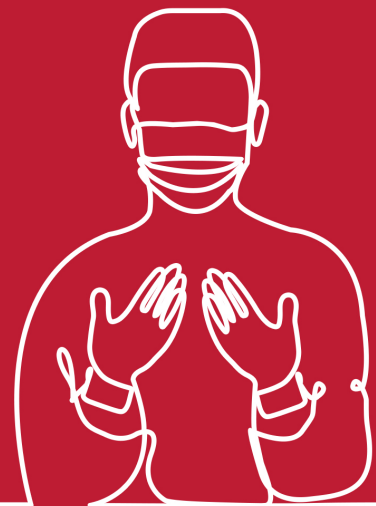


A cost-effective solution for reducing elective waits

Podiatric Surgery



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Executive summary

We have been challenged in the Parliamentary debate on the 20th April 2021 to deliver a bold transformative approach to the long elective surgical lists. Podiatric surgeons are well placed to assist NHS Trusts and wider referral pathways with the backlog of foot and ankle referrals and surgical caseload due to the COVID-19 pandemic. Governance is well proven with a forty-year history of podiatric surgery within the NHS.⁹ The Health and Care Professions Council (HCPC) regulate podiatric surgeons and monitor against the nineteen standards of proficiency for podiatrists practising podiatric surgery.² Surgical outcomes are measured nationally by the Royal College of Podiatry outcome tool PASCOM-10.¹⁰

Introduction

Podiatric surgery is the surgical management of the bones, joints and soft tissues of the foot and associated structures. A Podiatric Surgeon is a highly skilled clinician who, in addition to the first BSc (Hons) degree in Podiatric Medicine, has completed an MSc in Podiatric Surgery. The clinicians undertake a minimum of 11 years of rigorous study and complete an extensive surgical logbook, before qualifying to perform foot and ankle surgery.

Podiatric surgeons work closely with vascular consultants, diabetologists, rheumatologists, orthopaedic surgeons, interventional radiologists, and other members of multidisciplinary teams. This ensures that each patient receives the highest quality care and the best clinical outcomes via cost effective day case surgery in the post pandemic period.



Podiatric surgeons undertake foot surgery to treat these conditions:	
Foot deformities	
Foot and ankle osteoarthritis	Hallux valgus/Tailors bunionette
Pathological painful flat foot	Limb threatening ulceration
Foot trauma	Charcot foot reconstruction
Haglund's deformity	Fracture management
Great toe pain/Hallux rigidus	Degenerative and inflammatory joint disease
Toe deformities:	
Hammer toe	Mallet/Claw toe
Subungual exostosis	Peri-ungual fibroma
Trapped nerves and malformations:	
Tarsal tunnel syndrome	Morton's neuroma
Painful soft tissue pathology:	
Benign tumours: lipoma/ganglion/cysts	Plantar fasciitis
Ankle ligament repair	Tendon repairs
Tibialis posterior dysfunction	Insertional pathology of the Achilles tendon
Skin tumours	Fibroma

Scope and Regulation of Podiatric Surgery

Podiatric Surgeons work to the proficiency standards of their regulator, the HCPC,² to ensure the protection of the public. They undertake a range of surgical and non-surgical techniques within the foot and associated structures, including the provision of foot and ankle surgery for congenital and acquired deformity.

Service example

South Derbyshire Community Health Services NHS Foundation Trust set up a podiatric surgery service which included a Consultant Podiatric Surgeon, a team of three podiatric support staff and theatre nursing staff. This provides a comprehensive range of foot surgery



in a community hospital and ambulatory/day-case unit. This change in service delivery from inpatient, orthopaedic led foot surgery services was implemented and led at a strategic level involving podiatry managers, GPs, and service commissioners.

The service provided day-case surgery for many conditions. This reduced inpatient admissions at the acute district general hospital and increased bed allocation for other services. Podiatric Surgery being delivered within the community hospital meant that elective patient activity was not impacted by seasonal variations or trauma.

Due to the staff skill mix, non-surgical orthotic treatment, as well as surgical treatment, was available to patients. This proved very popular with GPs who found it convenient to refer all foot conditions to one location.

Several performance outcomes including activity data, patient satisfaction, and adverse outcomes were recorded and reported to local GPs in three monthly reports. Specific operations and conditions were more closely audited and reported in peer-reviewed journals. The surgery department quickly grew to four consultant podiatric surgeons, three specialist registrars in podiatric surgery and a trainee in podiatric surgery.

This service model demonstrates that elective foot surgery, provided in the community setting by a podiatric surgery team, offers substantial cost savings. As the majority of patients attending for elective foot surgery are in good health with appropriate social support, they do not generally require the infrastructure present in an orthopaedic department that provides for the frail, elderly or those assessed as medically unstable.

Therefore, inpatient stays are reduced to a minimum and there is a reduced reliance on anaesthetist input; as many cases may be performed using regional anaesthetic techniques instead of general anaesthesia. Day-case surgery is popular with patients and by focusing a dedicated team

towards foot surgery, excellent outcomes and high patient satisfaction follow. This initial pilot resulted in a saving of over £19,000.

A study over 20 months demonstrated the prevention of 86 acute admissions. These were for 48 cases of urgent and prophylactic surgery and 38 patients with osteomyelitis and cellulitis that may have required temporary acute admission.³ The average cost of a bed day within an acute unit is £222.⁴

Surgical complications

Complications are linked to the complex nature of foot surgery. Surgical complications within podiatry are recorded nationally by the Royal College of Podiatry database PASCOM-10. The 2017 Commissioning Guide: Painful Deformed Great Toe in Adults,⁵ laid out the threshold that must be reached before surgery is offered as an option.

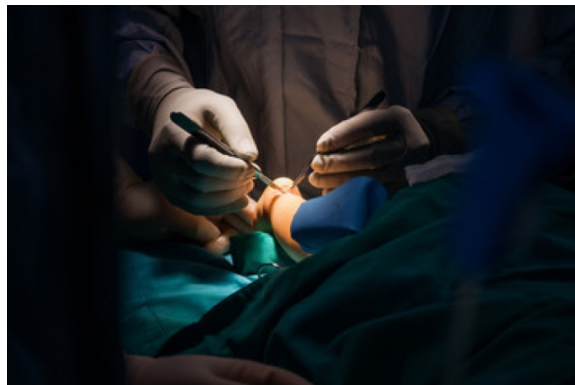
The guidance states that surgery should only be offered after conservative non-surgical options have been exhausted. These include treatments such as orthoses, injection therapy, footwear advice and MSK interventions.

Individual risk assessments are undertaken to reduce the risk of complications, such as infection and venous thromboembolism, that may occur with any surgical procedure.

Non-Medical Prescribing

Evaluation studies have demonstrated significant improvement in patient outcomes when receiving non-medical prescribing from independent prescribers compared to treatment as usual⁶. Non-medical independent prescribers are practitioners responsible and accountable for assessing patients with previously undiagnosed or diagnosed conditions, and for decisions about the clinical management required, including prescribing.

Having prescribing rights enables podiatric surgeons to make more effective use of their knowledge and skills, improves continuity of care and facilitates quicker consultations and easier access to services and medicines for patients.⁷



Non-medical prescribing allows podiatric surgeons to expand current practice to better manage complex conditions such as neuropathic pain, osteomyelitis and to reduce thromboembolic risk factors.⁸ At a time of financial constraint in the NHS, non-medical prescribing has important implications for maximising resources reducing admissions and improving patient care.

PASCOM-10 and Patient Experience

PASCOM-10 was launched in 2010 by the Royal College of Podiatry. Over the last 10 years, podiatric surgeons have used its online validated tools to collect activity and outcome data on a broad range of foot surgery.¹⁰ A particular benefit of PASCOM-10 is that it allows users to collate not only activity data but also outcomes including complications, patient-reported outcomes and patient experience. To date, PASCOM-10 has registered 137,237 patients and recorded 141,964 episodes of care. In 2019 a total of 14,685 attendances were recorded for either surgery or therapeutic injections resulting in almost 21,000 procedures.

Patient experience is captured with the PSQ-10 Patient Satisfaction Questionnaire. This revealed that 95.9% of patients felt their aims and expectations had been wholly or partially met. An encouraging 91% of patients described their foot problem as better or much better and 92.4% of patients would have surgery under the same conditions again. Considering shared decision making, 98% of patients recalled receiving an explanation of the risks associated with treatment and 96.9% were confident that they knew who to contact in case of any concerns post-operation. Finally, given the difficulty foot problems can cause with both walking and wearing standard shoes, 98.4% of patients reported being able to wear their preferred shoes following treatment.

Diabetic Foot surgery

In England, podiatric surgeons are integrated with multidisciplinary diabetic foot services, applying their biomechanical knowledge and surgical skills to minimise amputations.¹⁰

In April 2014, the Nottingham Diabetes and Podiatric Surgery teams set up a pathway to manage some of these patients in a community based podiatric surgery theatre.¹¹ Over the first two and a half years, 64 patients attended for surgery on 74 occasions.¹³ In summary, the most common reasons for referral were digital osteomyelitis, necrosis or ulceration; hallux inter-phalangeal joint ulceration and metatarsophalangeal joint ulceration. A range of surgical techniques was employed, but interestingly, only 23% were classed as amputation. All patients were treated as a day case under regional anaesthetic. Almost 70% of surgical wounds healed without complication with only seven post-operative infections noted. However, just over 85% of wounds healed in a mean 5.9 weeks and 70% of patients were subsequently discharged from the multi-disciplinary team with their follow up care provided by community podiatry services. From September 2019 to August 2020, data collected specific to diabetic foot surgery,¹⁰ demonstrated that admissions resulted in 605 surgical procedures ranging from relatively minor surgery through to major amputations and reconstruction of the foot. 88% of patients reported the aims of their treatment were met and 97.65% of patients would have surgery again under the same circumstances. 98% of patients were happy with the outcome of the procedure performed by a podiatric surgeon.

Case Study

High-Risk Foot Protection Team Whitworth and Buxton Diabetes Clinic

Objective: To move the treatment of complex diabetic foot cases closer to the community, to prevent unnecessary bed days, and to provide individual care whilst reducing pressure on hospitals.

Historically, complex diabetic foot patients were seen at Stepping Hill Hospital in Stockport - twenty-one miles away. A High-Risk Foot Protection Team was established and led by the podiatric surgery team which specialises in treating complex patients. The service can appropriately assess, diagnose, and treat complex diabetic foot complications in a community setting and promptly reduce the need for a costly referral to the acute sector. The clinic can treat soft tissue and bone infections, fractures, dislocations, and diabetic ulcerations. It uses the vast experience of the podiatric surgery team to treat day cases swiftly and effectively. Patients can access the service through attendance at minor injuries or through their GP surgery. Referrals come from GPs, community podiatrists, diabetes specialist nurses and consultants at Chesterfield Royal Hospital.

What has the impact been?

The service has been extremely successful, both in patient satisfaction and cost savings. An astonishing 98% of respondents said they would be 'extremely likely' to recommend the service to family and friends. The service has avoided 38 admissions to hospital each year through immediate treatment by Podiatric Surgeons. This was achieved in some cases through topical antimicrobial therapy in foot ulcers, often enabling the early discontinuation of systemic antibiotics. In other cases, patients were treated for bone infections which, if admitted, would often have involved a period in hospital on IV antibiotics. Some patients were treated for cellulitis in the foot and leg which would, upon admission, have often resulted in IV antibiotics and hospital admission.

Integration of Podiatric Surgery and Vascular Surgery - The MARS reduction amputation model

The purely neuropathic diabetic foot is becoming less common with the prevalence of neuro-ischaemic ulcers rising. Furthermore, there is an acknowledgement now that the number of foot ulcers in people without

diabetes, i.e. those related to peripheral arterial disease or another medical issue, is similar to the population of people with diabetes, as half of all amputations are in people without diabetes. The number of surgical foot procedures in patients with a normal blood supply is therefore reducing. The close collaboration of podiatric surgeons with vascular surgeons is therefore vital as the number of patients with a compromised circulation is increasing along with their frailty and surgical needs.^{14,}

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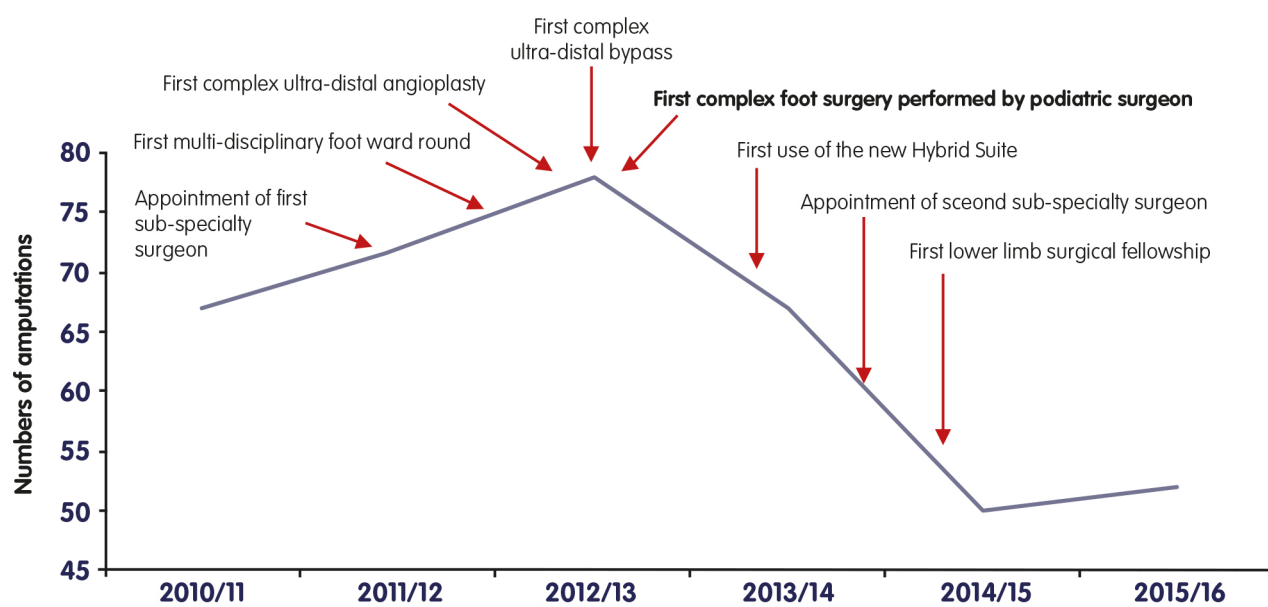


Since this collaboration, multidisciplinary case discussions including foot biomechanics has entered the lexicon of the vascular surgeon. Vascular waiting lists are streamlined as these procedures are performed by podiatric surgeons. This dedicated podiatric foot surgery activity provides rotations and placement opportunities for both vascular and podiatric trainees.

By definition, vascular patients have compromised circulation; and close collaboration between specialties is vital before undertaking foot procedures. Additionally, the nature of procedures is complex, with rarer amputations such as hind-foot, mid-foot and forefoot being performed regularly. The podiatric surgeon also has admission rights onto vascular wards with the medical management undertaken by the vascular surgeons which work well offering a seamless patient journey.

In Manchester University NHS Foundation Trust the service led by a Vascular Surgeon and Podiatric Surgeon saw a drastic improvement in limb salvage when MDT working was launched, as represented by Figure 1.

Figure 1: Reducing Major Lower Limb Amputations at Manchester Royal Infirmary 2010-2016



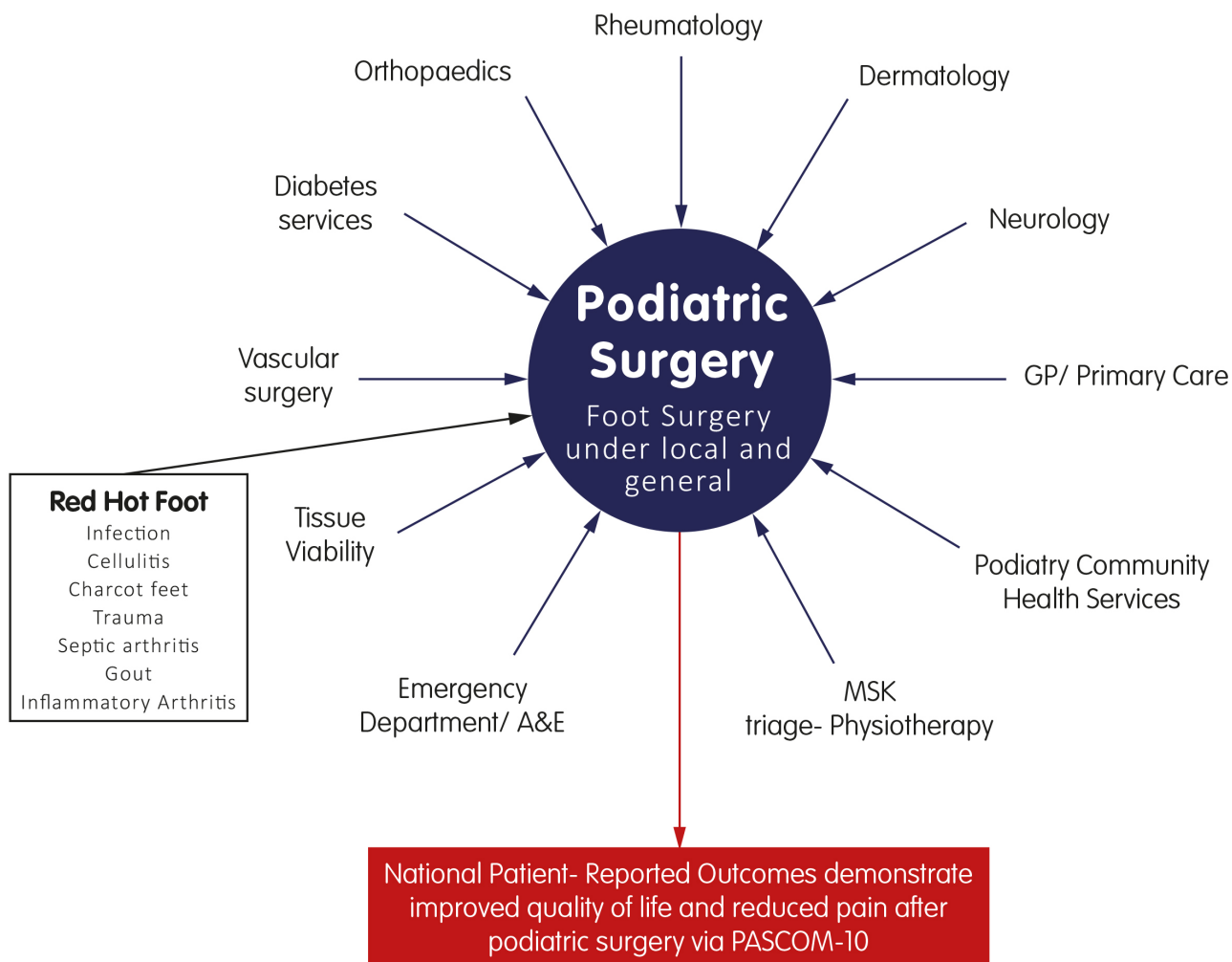
Conclusion

Podiatric surgeons are well placed to assist with the backlog of foot and ankle elective surgery caseloads due to the COVID-19 endemic. Podiatric Surgery services within each health region are essential services to keep the ageing population mobile and active, addressing current physical and mental health priorities. Non-medical independent prescribing enables improved continuity of care, facilitates quicker consultations and access to services and medicines for patients, reducing admissions.⁶ Podiatric surgeons are integrated with multidisciplinary diabetic foot services, applying their biomechanical knowledge and surgical skills to minimise amputations.¹¹ The close collaboration of podiatric surgeons and vascular surgeons is a vital partnership due to the number of patients with a compromised circulation, which is increasing, along with their frailty and surgical needs.¹⁴ Allied health professionals are ideally placed to break down traditional barriers between hospital and community services, delivering innovative models of tackling long waits, and can drive integration across social care boundaries.

Appendix 1

Referral Pathways to Podiatric Surgery

Many painful foot deformities prevent activity leading to poor quality of life and a loss of cardiovascular function causing a decline in overall health.



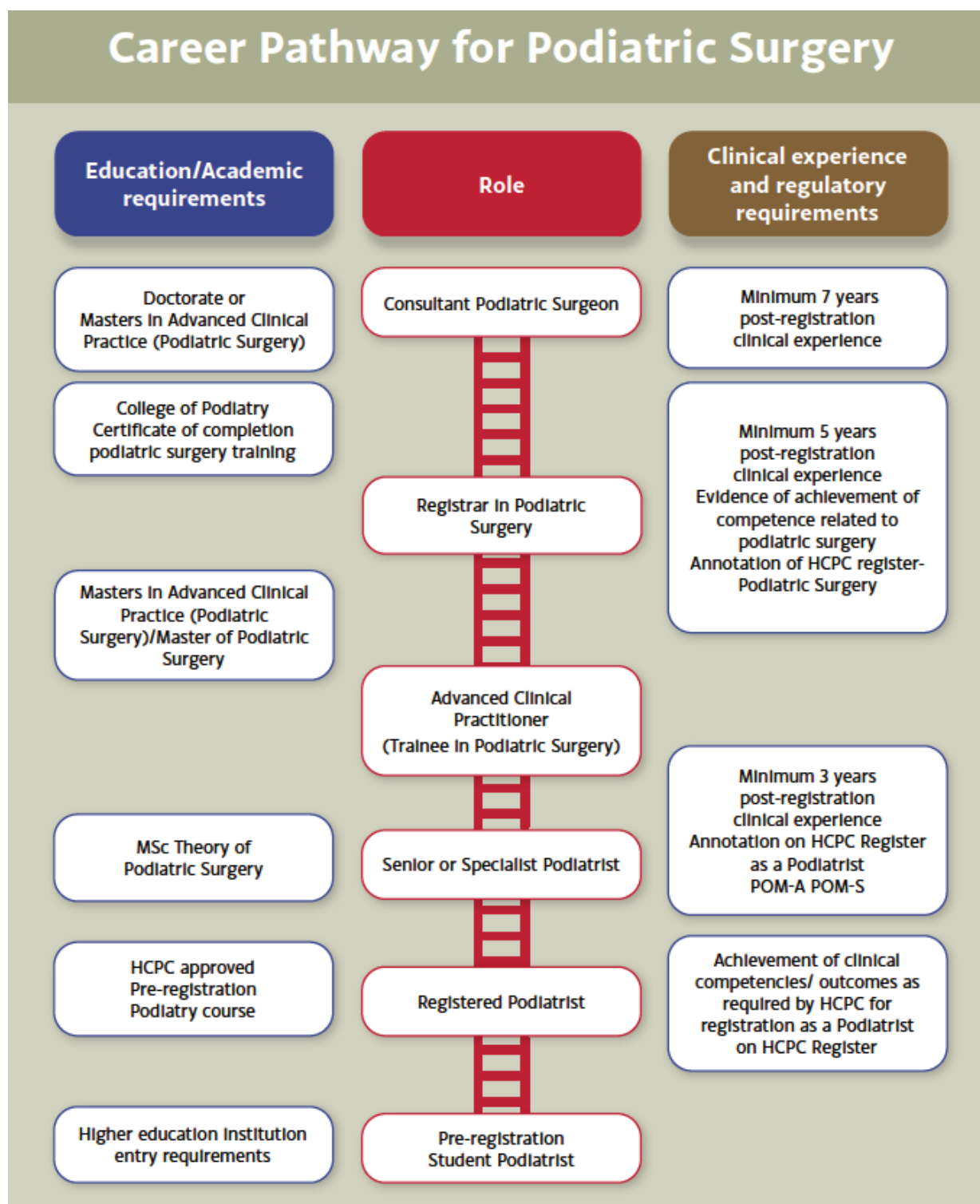
Appendix 2

Qualifications, training, and supervision

A Podiatric Surgeon must initially undertake a three to four-year honours degree in Podiatric Medicine, followed by a one to three-year MSc in the Theory of Podiatric Surgery. On completion of the MSc, a trainee in Podiatric Surgery will undergo a three-year, Consultant-supervised, training programme followed by a final surgical examination. Training of a podiatric surgeon takes place within an NHS environment; with rotations through various departments and multidisciplinary teams, which may include rheumatology, neurology, pain management, orthopaedics, diabetes and radiology and vascular departments.

A trainee in podiatric surgery and registrar will work under clinical supervision until they have achieved the Certificate of Completion of Podiatric Surgery Training (CCPST). On qualification as a Podiatric Surgeon, they will have to commence three years of specialist training to consolidate and enhance their surgical skills and scope of practice. Once they have achieved competency in all aspects of Podiatric Surgery, developed an extensive surgical portfolio and attained a CCPST, they will be eligible to apply for an NHS Consultant Podiatric Surgeon post.

Appendix 3



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