

Original article

Development and implementation of a hand therapy extended scope practitioner clinic to support the 18-week waiting list initiative

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Abstract

Background. A changing and competitive health market demands the need to review existing services and develop new ways of working in order to improve and maintain service delivery. Developing the role of the extended scope practitioner (ESP) and altering patient pathways through specialist hand units is one way that service delivery can be improved to adhere to the 18-week waiting time from a General Practitioner (GP) referral to the start of treatment.

Methods. One-hundred GP referrals for carpal tunnel syndrome (CTS) and first carpometacarpal osteoarthritis (CMC OA) were selected to attend an ESP clinic audit led by two specialist occupational therapists for diagnosis and implementation of a conservative treatment programme, which was confirmed by a consultant. The ESP clinic was audited against key performance indicators to evaluate ESP effectiveness and improvements in the patient pathway.

Results. The ESP can effectively diagnose and manage CTS and CMC OA patients without increasing the demand for surgical opinion or procedures. The ESP is also effective in diagnosing other conditions such as early-onset Dupuytren's disease, de Quervain's disease, ganglions and trigger finger.

Conclusions. ESP clinics have the potential to improve the patient pathway by providing earlier access to a specialist opinion for a diagnosis and management of hand conditions thereby improving service delivery.

Keywords: Extended scope practitioner, waiting time initiative, carpal tunnel syndrome

Introduction

The National Health Service (NHS) is entering a new era of competing with independent health-care service providers while meeting government targets of adhering to the 18-week waiting time from a general practitioner (GP) referral to the start of treatment.

As of April 2008, the patient choice policy was implemented by the Department of Health.¹ This will challenge the NHS to compete with independent health-care organizations to provide diagnostic services to Primary Care Trusts in order to attract patients and maintain financial targets as well as meet government initiatives of

adhering to the 18-week waiting time from a GP referral to the start of treatment. Managers are therefore challenged to develop new ways of working in order to deliver a more efficient and cost-effective health-care service. Altering patient pathways through specialist hand units within hospital trusts is one way in which service delivery can be improved and maintained.²

In 2006, two specialist occupational therapists began the process of establishing an extended scope practitioner (ESP) clinic and altering the patient pathway for selected hand conditions within the hospital trust. This process involved a number of stages that led to the submission of two business case proposals to the surgical and therapy directorates. These proposals would firstly permit a trial ESP clinic and secondly agree the implementation of a new patient pathway for carpal tunnel syndrome (CTS) and carpometacarpal osteoarthritis (CMC OA) with a view to including other hand conditions once the trial ESP clinic had been evaluated.

The process of establishing an ESP clinic is outlined, explained and represented on a Gantt chart in Appendix A, which can be used as a guideline for establishing an ESP clinic in other hospitals. Appendix A is available online only at <http://ht.rsmjournals.com/cgi/content/full/14/4/95/DC1>

History of ESPs

In the late 1980s clinical nurse specialists were developed to perform extended roles to assist with reducing junior doctors' hours.³ This prompted allied health professionals to enhance their scope of professional practice through the acquisition of extra skills and knowledge.⁴

Over the past decade hand therapists have facilitated the development of ESP clinics within the United Kingdom (UK).⁵⁻⁸ However, literature on ESPs in hand therapy is limited to a series of clinical audits rather than randomized controlled studies.

Our review of the literature aimed to evaluate the role and efficacy of ESPs in hand therapy and highlight pertinent issues that would need to be addressed when developing an ESP clinic.

In 2001, Ellis and Kersten⁹ conducted a survey to identify the number of hand therapists working as ESPs in the UK, their scope of practice and the training that was available for hand therapists practising as ESPs. It was established that there were 35 ESPs who worked in their own clinic environment, rheumatology departments

and in pre- or postoperative clinics. ESP training was predominantly experiential and included a period of observation, clinical supervision by the consultant and participation in combined surgical team training programmes, such as wound care and X-rays. Some ESPs completed single modules or entire masters programmes in hand therapy. ESP activities included making diagnoses, providing injections, performing joint aspirations, taking care of wounds, making referrals for surgery and doing investigative procedures, and implementing therapeutic regimens. The authors emphasized the need for ESPs to register nationally.⁹

In 2001, Peck *et al.* introduced an ESP clinic within the field of hand therapy in South Manchester. They conducted an audit that evaluated their practitioner-led clinic in terms of waiting times, did not attend (DNA) rates, patient satisfaction, secretarial and clerical staff satisfaction, the number of patients who required medical intervention and the number of patients who attended consultant hand clinics. A total of 649 patient visits to the practitioner-led clinic were recorded. The results of the audit suggested that the practitioner-led clinic provided an increase in patient turnover and increased patient satisfaction with a closer adherence to rehabilitation regimens, resulting in lower postoperative tendon rupture rates.⁵

Subsequent to this audit, Peck *et al.* conducted an additional audit over a 17-month period that evaluated the influence of ESP clinics on rupture rates following three types of primary tendon repairs in the hand. These included primary repairs of flexor tendons in zone II, Flexor Pollicis Longus (FPL) and Extensor Pollicis Longus (EPL) tendons. The results of the audit indicated a reduction in the incidence of tendon dehiscence from 30% to 17% for zone II flexor tendon repairs, 16% to 4% for FPL and 5% to 0% for EPL repairs with improved continuity of care.⁶

In 2004, Warwick and Belward reported their experience of running a diagnostic hand therapist carpal tunnel clinic over a three-year period. The report included the reasons why it was set up, the process by which it was run and the effect it had on practice. The resulting positive impact on patient care indicates that the efficient processing of an ESP clinic must match efficient provision of operating facilities. Although the report included only the results of a single-diagnosis clinic, it was emphasized that the process by which the clinic was established could be applied to another clinic environment, provided that distinct patient

management pathways are established for conditions that are referred by the consultant to the ESP clinic.⁷

In 2008, Storey *et al.* presented an audit of an ESP clinic for CTS in primary care. The results of their audit indicated that their clinic removed 46% of CTS referrals from the hand centre clinics and waiting times to first assessment were reduced from an average of 91 days for the consultant clinic to 20 days for the ESP clinic. Their audit established that mild and moderate CTS could be effectively managed by a community-based ESP clinic in a manner that is superior to that experienced by most CTS patients at a tertiary care clinic in terms of access, splint choice, patient information and empowerment.⁸

In summary, the development of ESPs in hand therapy has improved access to a specialist opinion and improved continuity and quality of care.⁵⁻⁸ However, there is still a need for further research in the form of randomized controlled trials to evaluate the effectiveness of ESPs in hand therapy.

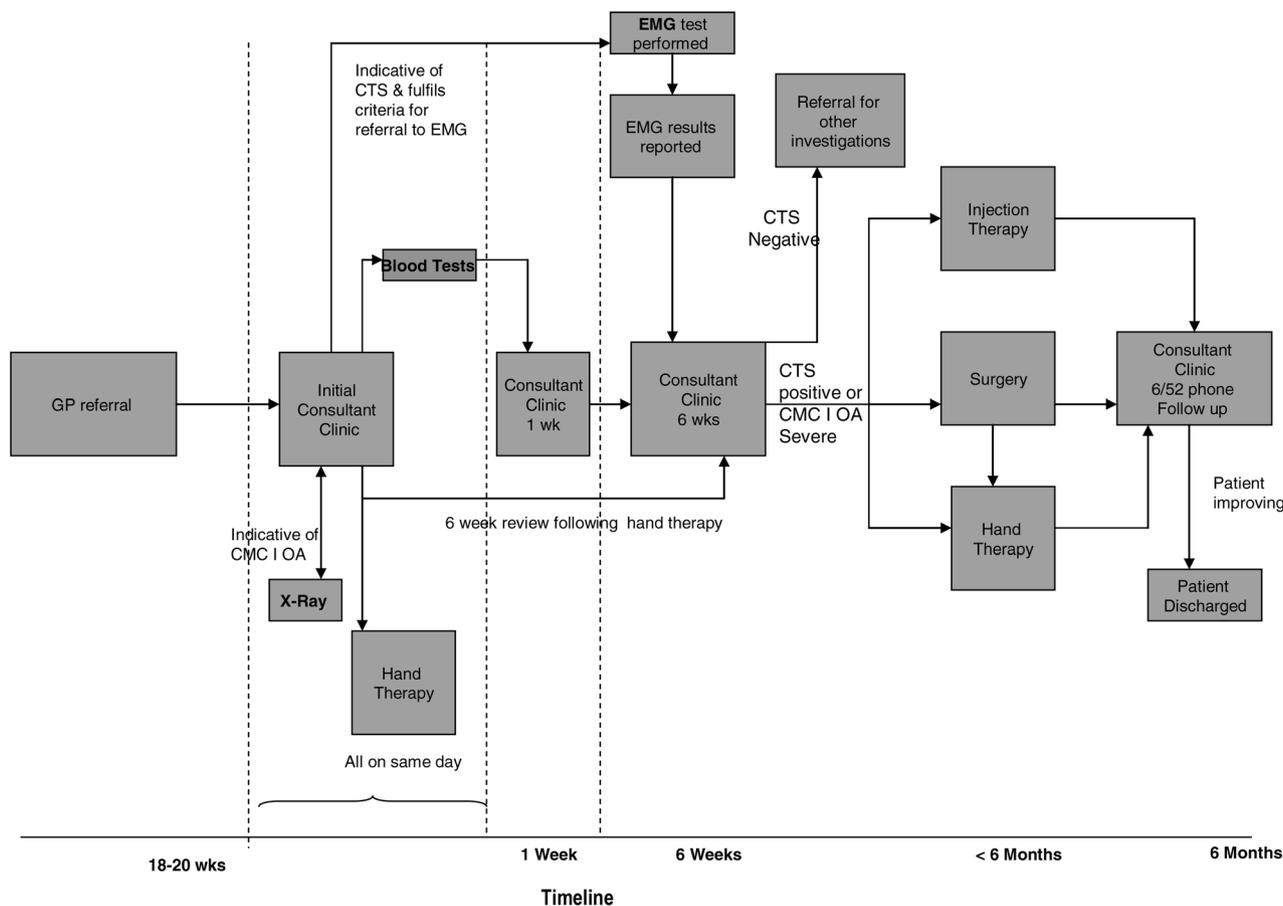
Development of an ESP clinic

Review of trust strategic data and waiting times

Four pertinent themes emerged from a review of the strategic data and waiting times. These included clinical quality, access, clinical effectiveness and new ways of delivering services.¹⁰ A review of the 2004/2005 waiting times for inpatient procedures indicated that 81% of patients were waiting up to six months for a procedure. As a result, the development of a trust-wide approach to extended scope practice became a key priority.¹¹

Review of the original patient pathway

The original patient pathway of CTS and CMC OA was reviewed to evaluate access to a specialist opinion and its clinical effectiveness (see Figure 1). The pathway was complex and required numerous outpatient appointments and was at risk of breaching government targets.



GP, general practitioner; EMG, electromyography.

Figure 1 Original carpal tunnel syndrome (CTS) and first carpometacarpal osteoarthritis (CMC I OA) patient pathway

It was established that the development of an ESP pathway should improve the original pathway by providing earlier access to a diagnostic service, be less complex and commence treatment at the first appointment.

The results of the review of the trust's strategic data and waiting times as well as the key issues that emerged from the literature review were integrated into a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis to support the development of the ESP role when submitting a business case proposal.

ESP training

Once it was agreed that the ESP role should be developed, training competencies were identified by the ESP and an in-house training programme was developed (Appendix B). Appendix B is available online only at <http://ht.rsmjournals.com/cgi/content/full/14/4/95/DC2>. This training approach was chosen as a result of a study that was published in 2005, which examined the role parameters and requirements of extended scope practice in hand therapy using the Delphi method.¹² The training aimed to ensure competencies in understanding disease pathology and independently request procedures for ordering X-rays and blood tests in order to make a diagnosis and/or clinical decisions with regards to a patient's treatment. The programme included diagnostic skills training in a trauma clinic with the consultant, attendance at formal training courses and self-directed learning. In addition,

the trust's radiology department provided Ionising Radiation Medical Exposure Regulation (IRMER) 2000 training.¹³

ESP assessment forms

The assessment forms were developed by the ESP and agreed by the consultant for the trial ESP clinic. The forms were designed as an audit tool to compare the ESP and consultant diagnosis and management plans. It was expected that the ESP would use advanced clinical judgement skills and be alerted to possible associated conditions such as diabetes, pregnancy, compression syndromes or possible fractures when examining the patient.

The assessment forms included a review of a patient's medical, social and work history as well as a clinical examination component. Tables 1 and 2 present the clinical examination component of the assessment forms. A scoring system was used for each diagnosis where a score of 1 was allocated to each positive test or response. A minimum score of 3 was required to diagnose each condition. This scoring system provides an additional means of evaluating symptom progression over time.

When appropriate, X-rays and/or electromyography were used to support the clinical diagnosis.

Use of an effective outcome measure

Outcome measures are used routinely in clinical practice to evaluate if a patient's health status

Table 1 Carpal tunnel assessment

	Common clinical tests	Assessment method	Left		Right	
1	Positive Phalen test	Paresthesias in the distribution of the median nerve when the patient fully flexes the wrist for 60 seconds				
2	Positive Tinel percussion over median nerve – at wrist	Paresthesias and pain in the distribution of the median nerve when the therapist taps the volar distal wrist crease with wrist slightly extended				
3	Weak thumb abduction	Weakness of resisted thumb abduction – compared with the other side				
4	Diminished two-point discrimination	Diminished ability to correctly identify two points that are set 4–6 mm apart				
5	Closed fist sign	Paresthesias in the distribution of the median nerve when the patient actively flexes their fingers into a closed fist for 60 seconds				
6	Thenar wasting <i>Patient reported symptoms</i>	Sometimes known as the Monkey hand				
7	Night time paresthesias	Patient will describe waking up with numbness in the distribution of the median nerve				
8	Flick manoeuvre	When the therapist asks the patient to describe what they do to relieve the symptoms of numbness the patient may describe a flicking motion of their hand/wrist				
	Total					

If the answer to the question is YES, please allocate a score of: 1
 If the answer to the question is NO, please allocate a score of: 0
 Minimum score allocation for a diagnosis is 3
 Maximum score allocation for a diagnosis is 8. Test both left and right hands

Table 2 CMC OA assessment

Common clinical tests	Assessment method	Left	Right
1 Pain felt in the CMC on administering the <i>Grind Test</i>	The examiner grasps the patients thumb and performs grinding motions while compressing the MC into the CMC longitudinally		
2 Creptius felt in the CMC on administering the <i>Crank Test</i>	Axial loading of the CMC joint of the thumb with simultaneous passive flexion and extension of the MC base		
<i>First CMC Osteoarthritis Signs and symptoms</i>			
3 Pain localized to CMC during activities of daily living	<i>Comments</i>		
4 Swelling noted around the CMC joint			
Total			

CMC OA, carpometacarpal osteoarthritis; CMC, carpometacarpal; MC, metacarpal

If the answer to the question is YES, please allocate a score of: 1

If the answer to the question is NO, please allocate a score of: 0

Maximum score allocation for a diagnosis is 5

Minimum score allocation for a diagnosis is 3

has improved as a result of an intervention. The audit required a standardized self-reporting outcome measure that was specific to the upper limb and/or CTS and that was easily understood by the patients and quick to complete. A number of standardized measures are available. These include the Disabilities of the Arm, Shoulder, and Hand (DASH),¹⁴ the Boston Carpal Tunnel Questionnaire (BCTQ)¹⁵ and The Upper Limb Functional Index (ULFI).¹⁶ The authors have used the BCTQ with a carpal tunnel information group but many of the terms and phrases were unfamiliar in the UK population.

The ULFI is a single-page, three-part Self-Reported Outcome Measure (SROM) that has 25 statements that are related to function only. The ULFI was developed to improve on other self-report outcome measures that were criticized for poor clinical utility, missing responses and poor psychometric properties.¹⁷ The ULFI has a combined patient completion and therapist scoring time of less than three minutes and tends to limit item redundancy. A prospective study confirmed the reliability, validity and responsiveness of the ULFI and correlation with the DASH ($r = 0.85$).¹⁷

The ULFI was therefore chosen as an outcome measure for the audit as it has both methodological and practical characteristic advantages for measuring upper extremity disorders that is superior to other SROMs. In addition, the ULFI provides a means of clarifying clinical status and subsequent changes that may result from the intervention over time.¹⁷ Therefore, it was established that the ULFI self-assessment would be implemented at both initial and follow-up appointments in order to evaluate functional performance outcomes following conservative management.

Trial ESP patient pathway

The trial ESP patient pathway is represented in Figure 1. This pathway was more complex than the original pathway as patients were seen by both the ESP and the consultant at the initial and follow-up appointments in order to confirm the ESP diagnosis and management plans. Prior to implementing the trial patient pathway, a clinical audit proposal was submitted and accepted by the trust.

Development of specialist investigation requesting policies

To ensure complete autonomy of the ESP, it was agreed that specialist investigations could be ordered by the ESP to confirm a diagnosis. Initially it was agreed that ESPs could order X-rays and blood tests, therefore a policy for requesting radiological investigations and blood tests was developed by the hand therapy department. The policy was agreed by the radiology and pathology department service heads following the resolution of a number of contentious issues and ratified by the trust's Clinical Governance committee. At a later date policies to request electromyography (EMG), dynamic ultrasound (DU) and magnetic resonance imaging (MRI) were approved by clinical governance.

Outline of contentious issues:

(1) *Laboratory medicine assay and ordering criteria*

It was agreed that rheumatoid factor, full blood count, thyroid profile, Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) tests could be ordered when inflammatory or metabolic disorders are suspected. ESR and CRP tests would not be ordered together. CRP will be ordered in the acute phase of an inflammatory response and ESR in the chronic phase. Recent test results would be

checked on the electronic patient record (EPR) prior to ordering more tests to prevent repeat orders.

(2) Terminology

All tests must be ordered on 'behalf of' a doctor and the names of the tests that are included in the specialist investigations requesting policy must match EPR. For example, when ordering X-rays the term radius and ulna must be used instead of forearm.

(3) Adverse incident reporting

Any suspected adverse incidents relating to the ordering of specialist investigations or subsequent patient management must be reported to a medical practitioner and documented in the patient's health-care record.

(4) Audit

Regular audits must be carried out to monitor adherence to trust and departmental policies.

the development of the ESP role and implementation of an ESP clinic in two phases. In phase I, 100 patients with CTS and CMC OA would be selected to attend a trial ESP clinic following a predictable pathway (see Figure 2). In phase II, a new patient pathway would be implemented following an audit of key performance indicators.

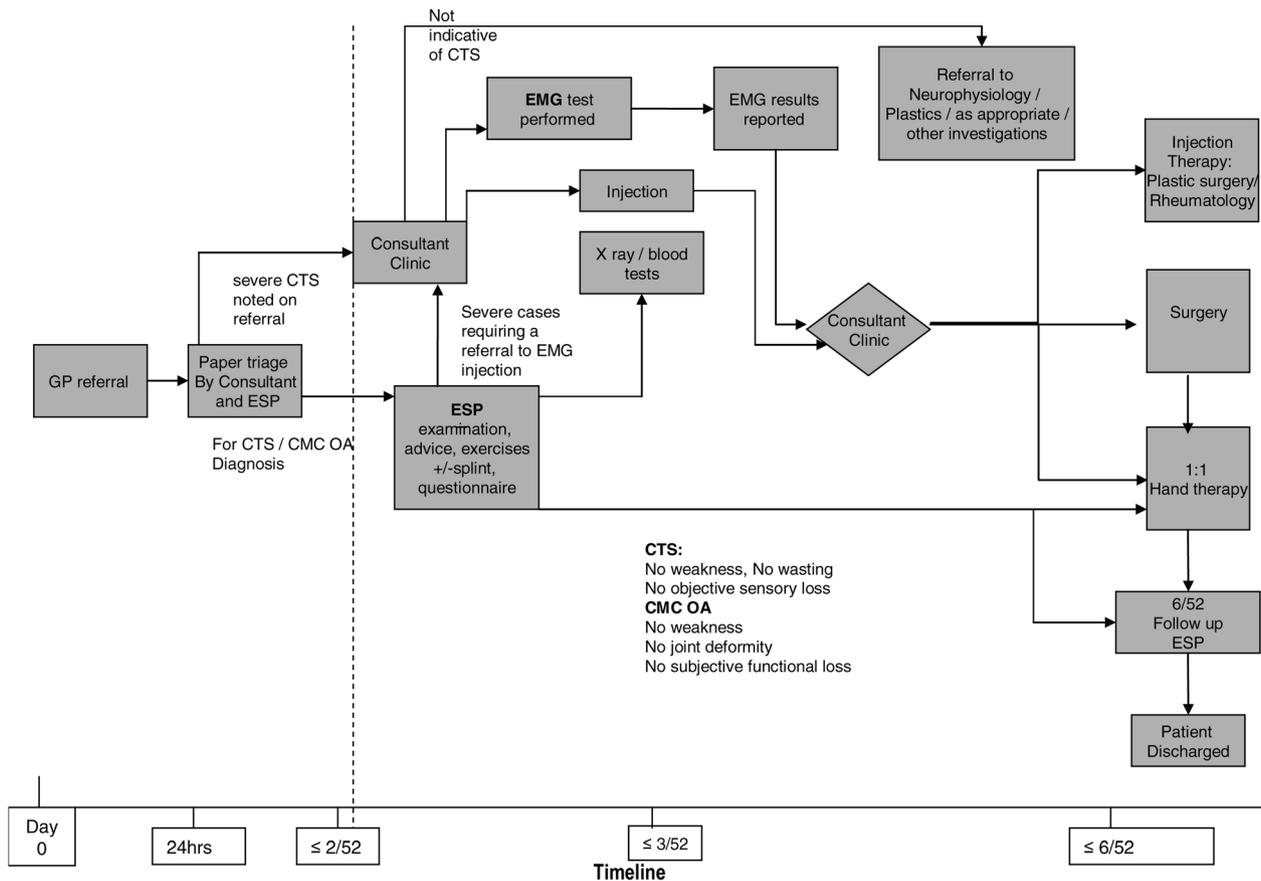
Key performance indicators included:

- Reduction in orthopaedic outpatient clinic waiting list for CTS and CMC OA (supports 18-week initiative);
- Improved patient pathway to first appointment and confirmation of diagnosis;
- Improved patient satisfaction;
- Improved functional performance outcomes;
- More effective use of clinical staff supporting cost efficiencies.

Business case proposal

A business case proposal was submitted to the surgical and therapy directorates that proposed

The business proposal included the SWOT analysis, plans for the ESP in-house training programme and requesting policies. The proposal stipulated that the ESP would be able to independently perform clinical tests for the selected diagnoses



GP, general practitioner; CTS, carpal tunnel syndrome; EMG, electromyography.

Figure 2 Trial extended scope practitioner (ESP) clinic and first carpometacarpal osteoarthritis (CMC OA) pathway

and order blood tests and X-rays in order to make a diagnosis and/or clinical decisions with regards to a patient's management plan.

The business case proposal was approved and formal recognition and liability cover were obtained in accordance with the College of Occupational Therapy/British Association of Occupational Therapy briefing 14 on extended scope practice.¹⁸

Phase I: trial ESP CTS and CMC OA clinic

Once the resources for the outpatient clinic were secured, 100 patients were selected for the ESP trial clinic by the consultant based on the GP referral letter and agreed by the ESP. A large sample was used for audit purposes to analyse the efficacy of the ESP clinic. Potential risk to the patient was minimized through the implementation of adequate risk management strategies by providing the ESP with ongoing training, supervision and mentoring by the consultant.¹⁹ Patients were provided with an appointment within 2–4 weeks of the referral. ESP referrals were managed by the clinic clerk who advised the patient that they would be assessed in both the consultant and ESP clinics on separate days for an initial and follow-up appointment. Patients were assessed by the ESP and referred for blood tests or X-rays to support the differential diagnosis if necessary. All patients were referred for EMG by the consultant to confirm the diagnosis of CTS. ESPs did not have rights to order EMG during the trial period. This delayed the confirmation of the diagnosis and prevented the ESP from being completely autonomous in the management of these diagnoses. ESP management plans were confirmed by the consultant at the follow-up assessment with the consultant. Patients who required injection therapy were managed by the consultant and referred on to hand therapy at a later date.

At the initial consultation with the ESP, patients were provided with education about their condition, Futura splints for CTS or neoprene thumb splints if they presented with CMC OA. Appropriate patients were referred to hand therapy for custom-made splints, ergonomic education, activity modification or neural mobilizations. Patients were referred back to the ESP clinic following treatment before being discharged to the GP. The trial phase was completed once 100 patients had been assessed by the ESPs

and diagnosis and management plans were confirmed by the consultant.

Phase II: review of key performance indicators and implementation of a new patient pathway

The results indicate that an ESP clinic has the potential to reduce orthopaedic and/or plastic surgery outpatient clinic waiting lists for CTS and CMC OA without increasing the demand for surgical procedures. The reduction in waiting times (2–4 weeks) to the first appointment for a specialist opinion supports the 18-week initiative. A formal analysis of cost efficiencies was not possible to calculate as patients were seen by the consultant and ESP. However, the implementation of the new patient pathway is intended to support cost efficiencies. An additional business plan was then submitted to the surgical and therapy directorates where it was agreed that a new CTS and CMC OA patient pathway should be implemented.

The new CTS and CMC OA patient pathway

A new patient pathway for CTS and CMC OA was developed and is presented in Figure 3. The new pathway is less complex, demands fewer outpatient appointments and provides the patient with early access to carpal tunnel group class, which has been developed in response to increasing numbers of patients referred to hand therapy from the ESP clinic.

Further developments

The ESP role has developed to ensure complete autonomy to maximize clinic efficiency. Delays in confirming a diagnosis have been reduced by extending the requesting policy to include EMG, DU and MRIs. The comparison of the surgeon and ESP management plans confirmed that the ESP is effective in diagnosing CTS as well as other conditions such as early-onset Dupuytren's disease, wrist injuries, de Quervain's disease, ganglions and trigger finger. This is of benefit to the patient as treatment can be initiated while the patient waits for an appointment with a consultant. Subsequently, the ESP role has developed to include obtaining first-line consent for specified elective hand surgery procedures in accordance with the trust's consent policy following a

placing increased pressure on the consultant clinics. However, according to Burke *et al.*²⁰, 25% of the patients listed for carpal tunnel decompression do not proceed to surgery.

Conclusion and recommendations

ESPs are clinical experts who have demonstrated flexibility to develop their roles to meet the needs of health services during changing times and are likely to continue to do so in an evolving and competitive health-care market.²¹ Therefore, ESPs have the potential to provide a service that is in line with global health trends that can improve service delivery in a way that is supported by clinical governance.

This paper described the practical aspects involved in the development and implementation of an ESP clinic to support the 18-week initiative and was audited against key performance indicators. It was established that an ESP clinic has the potential to reduce waiting times to the first appointment where diagnosis can be confirmed and treatment can be provided.

The following is recommended when developing an ESP clinic:

- Commitment within the trust to implement new patient pathways and provide the ongoing training and development of the ESP role;
 - Enthusiastic leadership to mentor the development of an ESP and provide in-house training;
 - ESP literature, trust strategic data and current patient pathway reviews are synthesized into a SWOT analysis to support a business case proposal;
 - Key performance indicators and training competencies are identified;
 - An agreed training programme is implemented and financed;
 - Radiology, haematology and neurophysiology departments are consulted when developing requesting policies;
 - The ESP has rights to order the necessary specialist investigations;
 - Clinical Governance ratification for all the required requesting and consent policies is obtained prior to implementing the trial/ESP clinic;
 - Liability cover is provided by the trust;
 - Risk management strategies are in place to protect the ESP and the patient;
- A trial ESP and consultant clinic is run simultaneously to prevent the delay in confirming the diagnosis and management plans;
 - Referral selection procedures for the ESP clinic are established and implemented;
 - Adequate geographical and administrative resources are provided to support an ESP clinic;
 - Bottleneck to surgery is prevented by ensuring that efficiency of the ESP clinic matches surgical capacity;
 - ESP skills develop further to include certain procedures such as providing injection therapy to manage selected diagnoses.

In conclusion, it is recommended that the role of the ESP continues to develop nationally and support the need for a national ESP register. Further research in the form of randomized controlled trials is needed to evaluate the efficacy of ESPs in hand therapy.

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Appendix B Outline of training competencies and mentored training programme

Skills/knowledge standards required to lead an ESP clinic	Essential	Desirable	Consultant teaching	Internal or external training	Self-directed study	One day	1-3 months	3-6 months	>6 months
Anatomy review Surface and internal anatomy of the hand Surface and internal anatomy of the wrist Surface and internal anatomy of the forearm and elbow Surface and internal anatomy of the upper arm Anatomy of the brachial plexus	√		√	√	√		√		
Disease pathology of CTS Factors concerning the internal anatomy of the wrist that can lead to CTS Common reported symptoms Common assessments that can be carried out in clinic Other investigations that will assist with a diagnosis Other conditions that present like CTS Therapy treatment options Other conservative treatment options Surgical and other options	√		√		√		√		
Disease pathogenesis of CMC OA Clear understanding of anatomy and disease pathology Common assessments/tests that will assist with a diagnosis Knowledge of the use of specific blood screening tests in order to exclude other serious pathology when making a diagnosis Therapy treatment options	√		√		√		√		
Disease pathogenesis of rheumatology Clear understanding of anatomy and disease pathology Understanding of investigations that will assist with a diagnosis Knowledge of the use of specific blood screening tests in order to exclude other serious pathology when making a diagnosis Other conservative treatment options Surgical and other options	√		√		√		√		
Skills/knowledge standards required to request X-rays Appropriate views for conditions seen Knowledge of indications and contraindications for requesting X-rays	√		√	√	√			√	

Appendix B (Continued)

Skills/knowledge standards required to lead an ESP clinic	Essential	Desirable	Consultant teaching	Internal or external training	Self-directed study	One day	1-3 months	3-6 months	>6 months
Knowledge of the use of X-rays to diagnose fractures or joint abnormalities and demonstrate practical technique/skill in making clinical decisions with regards to making a diagnosis Knowledge of the hospital electronic requesting system including use of the electronic patient record and PACS system for viewing X-rays IRMER Regulation 2000 as they pertain to the referrer Knowledge of the Royal College of Radiologists' guideline for doctors									
Pharmacology Pain assessment and management Basic knowledge of pharmacological actions of analgesia and the types of analgesia Pain assessment and management	√				√		√		
Consent training <i>Generic</i> Knowledge of the trust consent policy and conform to it Pass the 'Generic Consent Knowledge Assessment' <i>Procedure-specific</i> In-depth knowledge of related anatomical and physiological aspects of the surgical procedure Able to clearly describe the procedure with relevant diagrams In-depth knowledge of, and able to communicate, risks and benefits to the patient of the procedure, with degree of risk involved Able to offer alternative therapies to the patient Aware of information leaflets that may benefit the patient in decision-making Aware of own knowledge limitations and how to access the health professional carrying out the procedure if necessary Observe consultant plastic surgeon seeking consent three times for each relevant specified procedure Seek consent under supervision of consultant plastic surgeon three times for each specified procedure	√ √		√		√	√	√		

(Continued)

Appendix B (Continued)

Skills/knowledge standards required to lead an ESP clinic	Essential	Desirable	Consultant teaching	Internal or external training	Self-directed study	One day	1-3 months	3-6 months	>6 months
Observe each specified procedure being performed – a minimum of three times The 'Competency to Consent' form (a record of observation and supervision) to be completed and signed									
Trust IT skills PIMS: ordering and prescribing EPR: ordering and prescribing	√			√		√			
Generic IT skills Basic Excel Intermediate Excel Advanced Microsoft Word		√		√		√			
Organizational and time management skills Leading an empowered organization Training		√		√		√			
Research/audit method skills		√		√	√				√
Other Ethical and legal issues related to practice Risk management BAHT accreditation	√	√	√	√			√		√

ESP, extended scope practitioner; CTS, carpal tunnel syndrome; PACS, Picture Archiving and Communication Systems; IRMER, Ionising Radiation Medical Exposure Regulation; BAHT, British Association of Hand Therapists