

POGP CONFERENCE 2017

The colorectal pelvic floor: a multidisciplinary team approach

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Abstract

The management of functional pelvic floor disease is challenging. Complex, multi-system interactions demand the integration of expertise from different specialties in order to allow the multidisciplinary team (MDT) to work together and achieve optimal results. Careful history taking and clinical assessment, tailored treatment escalation with physiotherapy as the first-line approach in the majority of cases, skilled radiology when necessary, and MDT-based discussion prior to offering operations by surgeons with a sub-speciality interest are all key. This paper reviews the evolution of this practice in a busy UK acute general hospital. Lessons from history and the experience of other specialties paved the way for a management pathway that has been implemented and run successfully. The management of joint physiotherapy and surgery clinics, and the way in which the MDT functions are discussed from the perspectives of both a specialist physiotherapist and a surgeon. This model of care has been endorsed as best practice by The Pelvic Floor Society.

Keywords: best practice, colorectal pelvic floor, management pathway, multidisciplinary team.

Introduction

The delivery of pelvic floor services within the UK National Health Service (NHS) has changed markedly over the past 10 years, as has what is considered to be best practice.

At Poole Hospital NHS Foundation Trust (PHNHSFT), Poole, UK, this change was driven by the recognition that the historical model of surgery as the first-line therapy for functional pelvic floor disease was flawed, and that the initial treatment needed to be non-operative in nature. This approach has been successful in other surgical specialties in which restoration of function was the desired outcome (e.g. orthopaedics).

The management pathway that evolved included physiotherapists in the first review of a patient. In most cases, the early initiation of conservative treatment obviated the need for radiological or physiological investigations, and 60–70% of all patients were successfully treated

in this way. Individuals were only investigated and considered for surgery if these strategies failed, or if they were deemed inappropriate subjects for physiotherapy from the outset. Investigations and case reviews were undertaken by a pelvic floor multidisciplinary team (MDT) before surgery was offered. This process both streamlined the pathway, and improved selection for procedures and, therefore, surgical outcomes. It has now been established as best practice and endorsed by The Pelvic Floor Society (TPFS; thepelvicfloorsociety.co.uk).

Background

Historically, surgery was a frightening and dangerous prospect that was reserved for those whose lives were in grave danger if they were left untreated. In medieval times, the cruelty of surgery and its poor outcomes relegated these procedures to laymen who had access to knives and scissors: the so-called barber surgeons with their instruments for shaving and cutting hair. These people were not deemed to be worthy of the name “Doctor”, and this is why surgeons are

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titled “Mr” or “Miss” to this day. It was not until the mid-1800s that the link between sterility and infection was understood, and as recently as the late-Victorian era, surgery was performed without anaesthetic. Operating in such conditions and in contaminated environments meant that the risk of septic complications was high. In time, the development of surgical teaching and the application of scientific principles made surgery a more-respectable profession and one associated with the upper classes. It was against this background that the practise of a challenging specialty in often-difficult circumstances with acutely ill patients demanded that surgeons needed to be authoritative and in control. The stereotype of a surgeon being domineering, frightening and arrogant was born.

Arguably, this reputation was unfair, and made modern surgeons targets for criticism. The responsibility for results weighed heavily on their shoulders, even in circumstances beyond their control, and a blame culture has evolved around surgeon-reported outcomes. There is a danger that the benefits of surgery might be overlooked, and too much emphasis placed on its downsides rather than its advantages. For example, many survivors of trauma and cancer owe their lives to the skills of a surgeon.

The surgical community has responded to the changing times by improving techniques and embracing modern technology. For example, the advent of the laparoscope and the therapeutic procedures that can be achieved with it have led to a renaissance in abdominal surgery. In addition, the increasingly careful selection of patients for surgery and judicious consideration of risk versus benefit have improved all areas of surgical practice, particularly in the treatment of the pelvic floor.

The surgeon’s objectives can be divided into four broad categories:

- (1) the saving of lives;
- (2) the removal of disease;
- (3) the repair of structure; and
- (4) the restoration of function, with or without repair.

The choice of surgery to satisfy the first three aims is more clear-cut; for example, stopping life-threatening bleeding, the removal of a cancer and the repair of a hernia, respectively. However, the surgical restoration of function is a much less certain option. The correction of anatomy is not necessarily associated with an improvement in function; for example, well-supported pelvic



Figure 1. Sir Harold Gillies in 1915 (www.gilliesarchives.org.uk).

floors can perform poorly and *vice versa*. A multifactorial aetiology, psychological problems and unrealistic expectations can all contrive to worsen surgical outcomes, and therefore, both poor selection and inadequate technique need to be addressed in a care pathway.

The multidisciplinary team

The key to improving outcomes in cases in which function underpins presentation is working as an MDT. This is not a new concept, and Sir Harold Gillies (1882–1960), the father of plastic surgery, first used this approach successfully during World War I (Fig. 1).

Many individuals suffered from blast injuries during the Great War. Porcelain prosthetics and masks were used to cover patients’ facial disfigurements, but function was not addressed. Gillies not only developed pioneering reconstructive surgery, but also recruited colleagues who specialized in dressings, function, speech, swallowing and morale. By working together, this team achieved outcomes that could only have been dreamt of previously.

In more recent times, other specialties have adopted this approach to treatment, notably the

field of orthopaedics. There are striking similarities between treating malfunctioning joints and pelvic floors. For example, a knee has bone, tendons and muscles that generate movement and stability in the same way that the pelvic floor does. It stands to reason that the pathways used to address joint pathology should work for the pelvic floor. For example, the treatment of osteoarthritis in the knee might involve painkillers, physiotherapy, support (i.e. braces) and surgery, if all else fails. For pelvic problems, the same pathway might comprise laxatives, pelvic floor physiotherapy, electrical stimulation and surgery. In the present authors' hospital, this process was initiated by recruiting the services of a physiotherapist at the very beginning of the pathway, i.e. the pelvic floor clinic.

Pelvic floor physiotherapy

Prior to 2009, negligible hours were available for colorectal physiotherapy at PHNHSFT. The first author (A.D.C.), a consultant colorectal surgeon, requested that the second (S.S.), a lead physiotherapist, trial attendance at his clinic to assess and commence treatment jointly.

With line management approval for a 6-month pilot, the following steps were undertaken:

- The physiotherapist and consultant jointly assessed the patient.
- This assessment included taking the patient's history, and performing subjective and digital rectal examinations.
- Decisions about the best steps to take next and the overall likely pathway were made jointly.
- The patient was informed about and involved in the joint decision.
- Conservative care commenced within the clinic. This was conducted in a side room and within a minimal time constraint of 5–15 min. The treatment was specifically tailored to the individual. The goal was to choose the most effective form of first-line management for each patient so that it would have the biggest impact on their symptoms.
- The patient was then put on the waiting list for physiotherapy follow-up (at approximately 8–10 weeks, depending on the referral rate).
- The patient attended the physiotherapy service for follow-up, and either continued treatment/ was discharged, or the physiotherapist requested a discussion with the pelvic floor MDT if the anticipated progress had not been attained.

The patient journey has been simplified, and is illustrated by Figure 2.

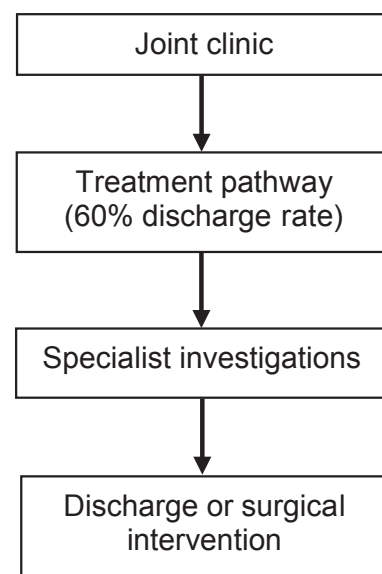


Figure 2. The patient journey.

The service benefits of the joint physiotherapy/consultant clinic are as follows:

- The care pathway has been shortened.
- Inappropriate cases are no longer referred for physiotherapy.
- Testing is less invasive, and 60% of the physiotherapy caseload are discharged.
- Many patients report improvements by the time that they are reviewed at the first one-to-one appointment.
- The length of one-to-one appointments has been reduced.
- The number of follow-up appointments required for a given volume of new patients has been reduced.
- The service receives fewer concerned phone calls from patients about their pathways.

The staff benefits of the joint physiotherapy/consultant clinic and the wider MDT meetings are as follows:

- Learning about the team member's respective roles has enhanced each individual's practice.
- The efficiency of the management pathway has improved because of colleagues' mutual understanding of MDT roles.
- Joint in-service training opportunities have been created.
- Appraisal support is now in place.
- There are now opportunities for staff to work as an MDT, and offer courses and support to other colleagues in the NHS.
- Difficult clinical presentations are discussed and shared.
- Communication has been enhanced by collaboration.

SHARING THE LOAD

BENEFITS OF A JOINT CONSULTANT-PHYSIOTHERAPY PELVIC FLOOR CLINIC

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BACKGROUND

Physiotherapy is increasingly recognized as first line treatment for pelvic floor disorders obviating the need for investigation or surgery. We decided to amend our working practices because we felt consultant clinics lacked consensus management, MDT assessment and optimal selection for surgery. Additionally, waiting times for first appointments with physiotherapy were long.

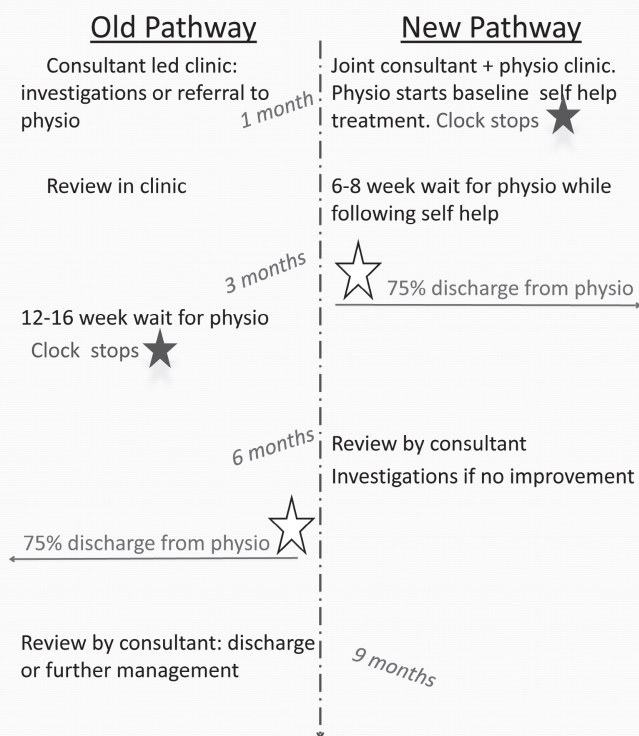
AIMS

To change the format of the surgical clinic to:

- Improve access and reduce waiting times to physiotherapy
- Reduce unnecessary investigation
- Improve patient selection for surgery
- Improve patient experience

METHODS

Dedicated Consultant and Physiotherapist clinic introduced
 Investigated for exclusion of luminal pathology if required
 Patient with obstructive defecation and faecal incontinence assessed by consultant and specialist physiotherapist and conservative treatment initiated if appropriate
 Onward investigations only if physiotherapy unsuccessful



Physiotherapy Cost Savings

	Old	New
NP / Follow Up Ratio	1:6	1:1.6
Cost	£233.6	£86.87
Design	New 80 mins Follow up 40 Band 7	New 55 mins Follow up 40 Band 7

Less physiotherapy F/U required as

- More appropriate referrals to physiotherapy
- Increasing therapists experience

RESULTS

TARGETS

Treatment starts in clinic. Clock stopped earlier.
 Reduction in follow up requirement (both surgical and physiotherapy) and freeing of capacity
 Reduction in investigations
 Significant cost savings

CLINICAL

Appropriate cases referred for Physiotherapy
 Appropriate cases referred back to consultant for treatment escalation.
 MDT involvement and consensus management

PATIENTS

Significant improvement in patient satisfaction
 Consultant endorsement of conservative measures

CONCLUSION

A joint clinic can

- Reduce waiting times (consultant + physiotherapy)
- Reduce costs
 - Less investigations
 - Less physiotherapy F/U
 - Less clinical F/U
- And ... increase inter-professional support in demanding clinics

Figure 3. Conference poster outlining the benefits of a joint consultant–physiotherapy pelvic floor clinic.

Several publications lend support to the development of similar service models (DH 2000; NICE 2007; RCS 2014; Herbert 2015).

Surgery

Any patient who is being considered for surgery, or whose treatments may not be achieving the desired result, are discussed at the MDT meetings. The PHNHSFT and Dorset County Hospital NHS Foundation Trust, Dorchester, are video-linked to provide a county-wide service. Surgeons, physiotherapists, radiologists, gynaecologists, gastroenterologists, physiologists and nurse practitioners from both sites participate in the meetings. All outcomes are entered into the hospital's electronic database, and patient symptom severity and quality of life scores are also documented. Investigations are reviewed, and suggestions are made by the team about how to proceed.

With regard to constipation, a distinction must be made between slow transit problems and difficult evacuation, both of which can lead to an infrequent and difficult bowel function. Obstructive defecation leading to stool entrapment might be corrected by either:

- (1) the stapled trans-anal rectal resection (STARR) procedure, i.e. removal of part of the rectum from the perineum using stapling guns; or
- (2) the laparoscopic ventral mesh rectopexy (LVMR), i.e. elevating the pelvic floor from above using keyhole surgery.

The STARR procedure and LVMR involve different selection criteria and preliminary investigations, and both have benefits and risks. Up-to-date evidence-based outcomes for these and other forms of surgery have been discussed in a recent systemic review (Grossi *et al.* 2017; Mercer-Jones *et al.* 2017). However, little graded evidence and few objective outcomes have been published to date.

Conclusion

A summary of best practice based on the experience of the PHNHSFT MDT is shown in the poster co-written by the present authors that was displayed at a POGP Annual Conference (Fig. 3). This approach has been endorsed by TPFS.

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Andrew Clarke MD FRCS is a consultant colorectal surgeon based at PHNHSFT. After qualifying in Manchester in 1988, his postgraduate training was undertaken in North West England. He worked at many of the major teaching hospitals, including the Paterson Institute for Cancer Research at the Christie Hospital in Manchester, was awarded an MD thesis in 2000, and after a brief period working in the USA, took up a consultant post at Manchester Royal Infirmary in 2002. After nearly 3 years, Andrew moved to PHNHSFT to build a laparoscopic and pelvic floor surgery service. He is proud to have worked with his physiotherapy colleagues to set up a joint pelvic floor clinic in Dorset. An MDT evolved from these clinics, which now consists of a group of dedicated clinicians and associated specialists who hold regular meetings. All patients whose pathways lead them towards surgical intervention are discussed, and they are investigated and operated on only when conservative therapies have been exhausted or deemed inappropriate. This model has been widely adopted by other centres, and is now considered to be the gold standard of care. Andrew was a founder member of TPFS, and still has close links with this national organization.

Sally Sheppard MCSP has worked at PHNHSFT since 2009. In 2013, their pelvic floor service model, Fast Assessment, Start Treatment (FAST), was a finalist in the NHS England Innovation Challenge Prize. This paradigm was devised after the successful piloting of physiotherapy in the colorectal clinic. Sally has also worked in primary care, assisting with the new female community urology service in Milton Keynes, and at the Royal Free Hospital in London.