# Tertiary, regional and local pelvic floor service providers: the future model?

**Andrew Williams**

***Pelvic Floor Unit***
***Guy's and St Thomas' NHS Foundation Trust***

# Background

- 23% women suffer at least one pelvic floor disorder, 2.9% have pelvic organ prolapse
- Of those with prolapse 69% urine incontinence
- Faecal incontinence 3.6 per 100,000 (age 60 – 89 years)
- 1 in 9 women have surgery for pelvic floor disorder
- 30% recurrent surgery for same condition
- USA 28.1M in 2010 projected to 43.8M 2050

  Equates to UK 7.4M 2010 projected to 11.5M 2050

National Pelvic Floor Society

The Association of Coloproctology of Great Britain and Ireland

NATIONAL PELVIC FLOOR SERVICES
CENSUS 2014

NAME OF HOSPITAL _____

NHS REGION _____

POPULATION

| UPTO 250,000 | | 250 – 500,000 | | MORE THAN 500,000 | |
|---|---|---|---|---|---|

1 NUMBER OF COLORECTAL SURGEONS ☐

2 NUMBER OF COLORECTAL SURGEONS WITH PELVIC FLOOR INTEREST ☐

If none then where is your pelvic work referred?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

3 % OF TIME SPENT IN PELVIC FLOOR WORK

| Surgeon | 0 – 25% | 25 – 25% | 50 - 75% | 75 - 100% | 100% |
|---|---|---|---|---|---|
| A | | | | | |
| B | | | | | |
| C | | | | | |
| D | | | | | |

4 Does your unit have specific pelvic floor clinics? YES / NO

5 If YES CLINIC FREQUENCY ☐ Per Unit/Per week

6 Does your unit have Joint Clinics? YES / NO

Who attends

| Colorectal Surgeon | Gynaecologist | Urologist | Physio | Nurse Specialist |
|---|---|---|---|---|
| | | | | |

7 Do you have an MDM? YES /NO

Is your MDM Joint with another institution? YES /NO

If No do you attend an MDM at another Hospital? YES / NO

(Specify- )

8 Who attends your MDM

| Colorectal Surgeon | Gynaecologist | Urologist | Radiologist | Physio | Clinical Scientist | Nurse Specialist | Admin Staff |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

9 What is the frequency of the MDM that you attend?

| Daily | Weekly | Bi Monthly | Monthly | Ad Hoc |
|---|---|---|---|---|
| | | | | |

10 On average how many cases are discussed in the MDM that you attend? ☐

11 Does your hospital carry out Endoanal ultrasound (EAUS) YES / NO

If No where do you refer your patients?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

12 Does your hospital carry out Anorectal physiology (ARP)? YES / NO

If No where do you refer your patients?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

13 Does your hospital carry out Defaecation Proctography? YES / NO

If No where do you refer your patients?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

14 Does your hospital carry out MRI proctography? YES / NO

If No where do you refer your patients?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

15 If your centre does these tests who does what?

*Please tick all the boxes that apply*

| PERSONNEL | EAUS | ARP | Def Procto | MRI Procto |
|---|---|---|---|---|
| Health care Scientists (Clinical scientists/Clinical Physiologists/Clinical Technologists) | | | | |
| Specialist Nurse Practitioner | | | | |
| Radiologists | | | | |
| Consultant surgeons | | | | |
| Research fellows | | | | |
| Physiotherapists | | | | |
| Other (please state) | | | | |

16 How many wte / unit are employed to undertake these tests?

| EAUS | ARP | Def Procto | MRI Procto |
|---|---|---|---|
| | | | |

17 How many sessions / unit / week ?

| EAUS | ARP | Def Procto | MRI Procto |
|---|---|---|---|
| | | | |

18 What training has staff received prior to undertaking these tests? (please tick all applicable)

| | EAUS | ARP | Def Procto | Def MRI |
|---|---|---|---|---|
| In house | | | | |
| Nationally recognized courses | | | | |
| BSc/MSc e.g Clinical Physiology, Clinical Science. | | | | |
| Equipment Manufacturer | | | | |
| None | | | | |

19 Who reports on these investigations?

| | EAUS | ARP | Def Procto | Def MRI |
|---|---|---|---|---|
| In MDM | | | | |
| Radiologist | | | | |
| Clinical Scientist / Nurse / Physio | | | | |
| Colorectal Surgeon / Gynae/ Urol | | | | |
| Research Fellow | | | | |
| Gastroenterologist | | | | |

20 Are these tests done as part of a one-stop service ie at the same time as initial consult?

YES / SOME BUT NOT ALL / NONE

21 What types of ARP are routinely carried out at your hospital?

*Please tick the box as to whether your centre does the following*

| INVESTIGATION | |
|---|---|
| Anorectal Manometry (including Voluntary and Involuntary Squeeze, Max Tolerated Volume, RAIR assessment) | |
| Rectal sensation | |
| Pudendal Nerve Terminal Motor Latency Test | |
| Balloon Expulsion Test | |
| Colonic Transit Marker Study | |
| EMG | |
| Others (please detail) | |

22 Please estimate how many tests are performed by your unit each week?

| | EAUS | ARP | Def Procto | Def MRI |
|---|---|---|---|---|
| Number / week | | | | |

22 What percentage are for each indication?

| INDICATION | EAUS | ARP | Def Procto | Def MRI |
|---|---|---|---|---|
| Incontinence | | | | |
| Evacuatory disorders | | | | |
| Fistulae | | | | |
| Others (please detail) | | | | |

23 Within your unit how many new patients will you see for the following conditions per month?

| Faecal Incontinence | Constipation | Obstructed Defaecation | External rectal prolapse | Anal / pelvic pain |
|---|---|---|---|---|
| | | | | |

24 With regard to pelvic floor surgery, how many of the following operations are performed in your unit per year?

| Procedure | Number of cases / year |
|---|---|
| Perineal procedure for prolapse (Inc Delormes / Altemeir / | |
| Abdominal posterior / resection rectopexy | |
| Ventral mesh rectopexy | |
| Perineal rectocoele repair | |
| Sphincter repair | |
| STARR | |

25 Does your unit carry out sacral nerve stimulation? YES / NO

If no then where are patients from your unit referred?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

Please estimate how many patients undergo temporary sacral nerve stimulation for faecal incontinence at your unit per year. ☐

Please estimate how many patients undergo temporary sacral nerve stimulation for constipation at your unit per year. ☐

26 Does your unit carry out Percutaneous tibial neuromodulation? YES / NO

If no then where are patients from your unit referred?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

27 Does your unit have a biofeedback service YES / NO

If no then where are patients from your unit referred?

| Locally Specify below | | Tertiary Centre Specify below | |
|---|---|---|---|
| | | | |

Please estimate how many patients undergo biofeedback for faecal incontinence at your unit per year. ☐

Please estimate how many patients undergo biofeedback for constipation at your unit per year. ☐

28. Do you think these procedures should be carried out only at a regional centre?

| PROCEDURE | REGIONAL CENTRE ONLY | |
|---|---|---|
| Biofeedback | | |
| Sacral Nerve Stimulation | | |
| Tibial Nerve Stimulation | | |
| Ventral mesh rectopexy | | |
| Perineal procedure for prolapse | | |
| STARR | | |
| Sphincter repair | | |

29 Do you have research fellows? YES / NO

If yes, how many

30 Do you have a specific "Pelvic floor trainee"? YES / NO

31 In the last three years have you entered patients into clinical trials YES / NO

Number (Local) Number (National)

32 You specifically collect audit data for the results of your unit? YES / NO

MANY THANKS FOR TAKING THE TIME TO COMPLETE THIS DOCUMENT

Please return to...

# 2014 ACPGBI Census

- 175 Colorectal Units
- 67 Replies, all self reported data

(75% of units with a consultant member of the PFS)

- 39% declared a tertiary practice
- 48% declared some pelvic floor surgery
- 13% declared no pelvic floor surgery

- Tertiary practice >500,000 population
- Rest of centres 50,000 – 500,000

# Staffing

Colorectal surgeons in unit

- Tertiary 6 surgeon units 30% pelvic floor,
  WTE 1.03 (0.88 (0.25 – 2.5)
- Regional 5 surgeon units 38% pelvic floor
  WTE 0.77 (0.75 (0.2 – 1.75)

# Clinics

Dedicated pelvic floor clinics

- Tertiary 80%, (82% weekly mean 1.3/week)
- Regional 56% (58% weekly mean 0.84/week)

| Proportion of joint clinics attended | Tertiary referral centres | Centres performing some pelvic floor surgery |
|---|---|---|
| Colorectal Surgeon | 100% | 100% |
| Gynaecologist | 75% | 58% |
| Urologist | 31% | 25% |
| Physiotherapist | 38% | 75% |
| Nurse Specialist | 81% | 50% |

# MDM

- Tertiary 84%

  (96% on site, 4% elsewhere, 34% joint)

  – Monthly 61%
- Regional 75%

  (59% on site, 16% elsewhere, 32% joint)

  – Monthly 47%

# MDM

| Proportion of MDMs attended by a: | Tertiary referral centres | Centres performing some pelvic floor surgery |
|---|---|---|
| Colorectal Surgeon | 100% | 100% |
| Gynaecologist | 86% | 95% |
| Urologist | 60% | 6% |
| Radiologist | 76% | 76% |
| Physiotherapist | 71% | 71% |
| Clinical Scientist | 48% | 80% |
| Nurse Specialist | 86% | 81% |
| Gastroenterologist | 43% | 10% |
| Administrative Staff | 38% | 52% |

# Investigations

- Tertiary 52 patients / month
  - One stop service available 46%
  - Clinical scientist 70%
  - Proctogram reported by nurse / surgeon (96%)
- Regional 38 patients / month
  - One stop service available 12.5%
  - Clinical Nurse specialist
  - Proctogram reported by radiologist (50%)

# Investigations

| | Anal Ultrasound | Anorectal Physiology | Defaecation Proctography | MRI |
|---|---|---|---|---|
| **Tertiary Unit** | 92% | 88% | 96% | 50% |
| **Regional Unit** | 56% | 44% | 47% | 17% |

# Treatment

- Tertiary 88% biofeedback
  130 patients per annum (max 550)
- Regional 78% biofeedback
  33 patients per annum (max 160)

Equally between constipation and incontinence

- Rectal irrigation 88% equal in both centres
- Neuromodulation 65% tertiary, 28% regional
  30 cases / annum equally
  2/3 incontinence 1/3 constipation

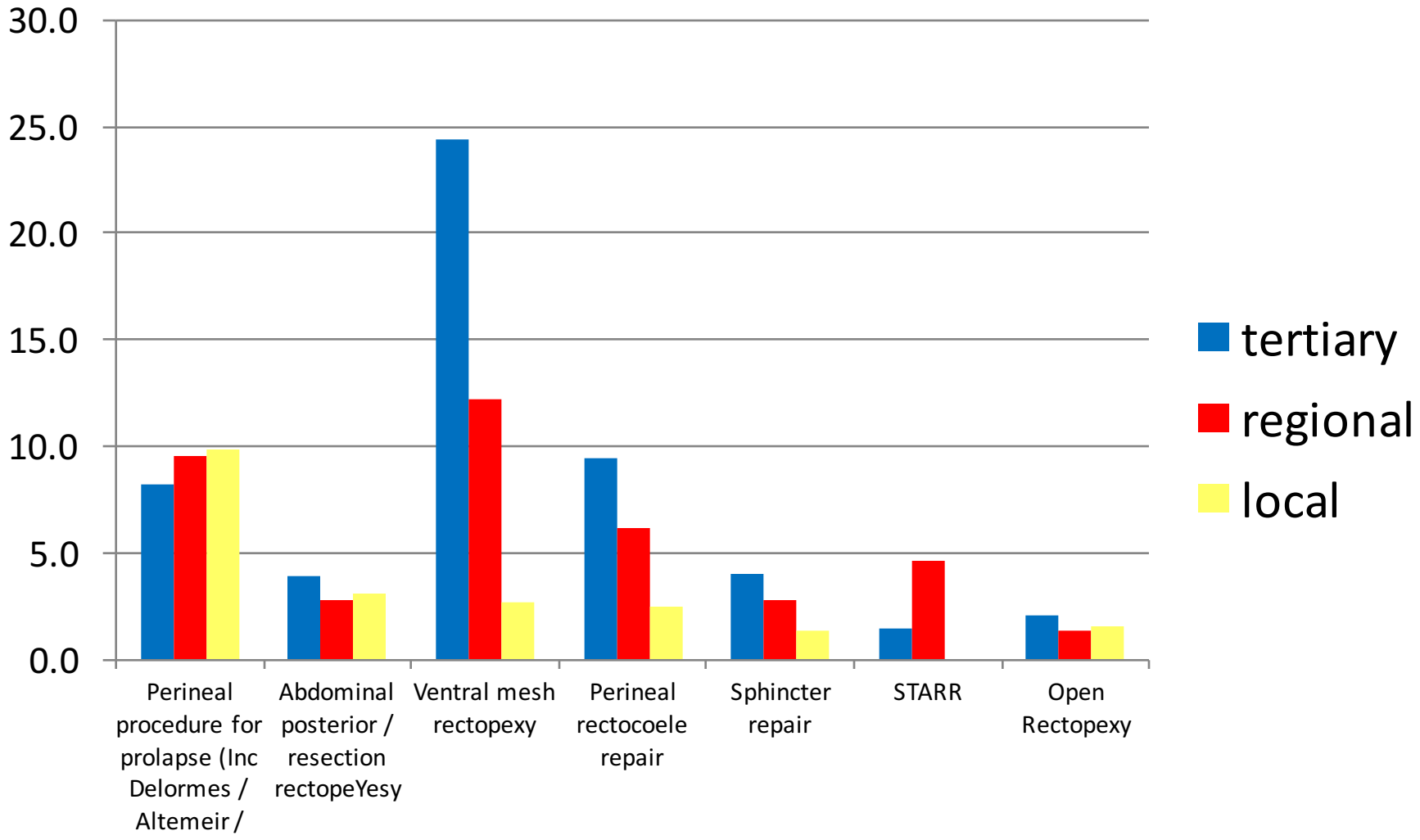
# Treatment

| Treatment | Tertiary Referral Centres | Regional Centres | |
|---|---|---|---|
| | Number of patients /Year | mean median (range) | |
| **BFB for faecal incontinence** | 67<br>25 (0 – 250) | 25<br>20 (0 – 84) | |
| **BFB for constipation** | 66<br>40 (0 – 300) | 18<br>13 (0 – 75) | |
| **SNS for faecal incontinence** | 23<br>20 (1 – 60) | 21<br>20 (6 – 75) | |
| **SNS for constipation** | 7<br>5 (0 – 25) | 7.5<br>0 (0 – 30) | |

# Surgery

| Procedure Mean, Median (Range) / Year | Tertiary Referral Centres | Centres performing some pelvic floor work | Centres with no pelvic floor interest |
|---|---|---|---|
| **Perineal procedure for prolapse** | 8<br>7 (1 – 20) | 10<br>8 (1 – 25) | 10<br>8 (0 – 15) |
| **Open rectopexy** | 2<br>2 (0 – 10) | 1<br>0 (0 – 15) | 2<br>1 (0 – 5) |
| **Abdominal posterior resection rectopexy** | 4<br>2.5 (0 – 18) | 3<br>2 (0 – 14) | 3<br>2 (0 – 15) |
| **Ventral Mesh Rectopexy** | 24<br>20 (0 – 84) | 12<br>12 (0 – 30) | 3<br>3 (0 – 6) |
| **Perineal rectocoele repair** | 9<br>3 (0 – 40) | 6<br>4 (0 – 36) | 3<br>0 (0 – 10) |
| **Sphincter repair** | 4<br>4 (0 – 10) | 3<br>1.5 (0 – 10) | 1<br>0 (0 – 0) |
| **STARR** | 2<br>0 (0 – 10) | 5<br>0 (0 – 27) | 0 |

# Surgery – annual rates



# Problems with the census 1

- Self reported-
  - What makes a tertiary centre?
    - Size >500,00
    - Referrals base
    - Local expertise, experience, practice
- Not all tertiary had
  - MDM on site
  - PF Clinic
  - Investigations

# Problems with the census 2

- Variations in work load
  - (BFB 130 – 550 / annum independent of population)
- Variations in Surgery
  - Some centres with no interest doing
    - Sphincter repairs
    - VMR
    - Perineal surgery for obstication
  - STARR small numbers more in regional than tertiary
  - Perineal procedure for prolapse universal

# The MDT

- Pelvic floor pathology often complex and multidisciplinary
- Evidence base for treatment poor, and so need robust research and audit
- Central to NHS commissioning of pelvic floor services
- NICE guidance CG49 on FI,
- NHS Service Spec A08/S/d Adult FI, - 50 cases in MDT / year
- E10s Recurrent Prolapse & recurrent Urinary incontinence
  - 16 units in England. Caseloads in accordance with RCOG projections
  - 55 sub- specialist Urogynaecologists (50% of practice) and 350 special interest Urogynaecologists.
  - >20 cases with mesh / year
- Mandatory for the performance/funding purposes of SNS.
- British Society of Urogynaecology Standards for Service Provision

# MDT

- Individualised treatment and care considered by professional healthcare workers with specialist knowledge and skills relevant to the pelvic floor
- Improved outcomes as a result of better understanding of the patient's issues and condition
- Patients being given information and tailored support needed to cope with their condition
- Continuity of care, even when this care involves different healthcare professionals
- Good communication between primary, secondary and tertiary care
- Good data collection, both for the benefit of the patient and for robust audit and research
- Adherence to local and national guidelines
- Promotion of good working relationships
- Optimisation of resources by more efficient working
- Opportunities for education and training
- Patients being offered the opportunity to be involved in clinical trials

# National Structure for Pelvic Floor Services

- Local centres triage and exclusion of “red flags”
- Regional centres (250,000 – 500,000)
- Tertiary / Reference centres (>500,000)

Tertiary centres offer all of services at regional level but also sub-specialist treatment / management.

ALL treatment is MDT based with this being the core of service delivery

# MDT Members - Core

- At least one colorectal surgeon who specialises in performing the spectrum of operations that may be needed to treat the conditions;
- A pelvic floor physiologist and/or a specialist nurse who undertake diagnostic evaluation of pelvic floor abnormalities and introduce and optimise conservative management at an early stage;
- A urogynaecologist;
- A radiologist (or trained equivalent) with an interest in pelvic floor disorders who is able to offer a high quality dynamic defaecography service and interpretation of endoanal ultrasound
- Administrative staff (MDT co-ordinator) to ensure that documentation is accurate and effectively recorded

# MDT Members - Expanded

- Further numbers of the above specialists: ideally a second colorectal surgeon and specialist nurse to cover absence
- A medical gastroenterologists with an interest in digestive motility
- A pain management specialist
- A psychiatrist or psychologist
- A functional urologist
- Trainees (colorectal or gynecological) with interest in pelvic floor disease
- Research staff e.g. CRN-funded NHS support staff to identify trial recruitment
- An MDT coordinator

# Regional

- At least two CR surgeons with interest
- 50% or more of job, equate to 0.75 – 1.0 wte
- 25 – 40 referrals / month
- Weekly pelvic floor clinic
- Monthly joint clinic (urology / urogynaecology)
- Aspiration to a proportion “one stop”
- Mandatory MDT involvement, preferably on site or shared on rotation
- Weekly / Biweekly discussing 5 – 10 cases (max20)
- AES, ARP, Proctography / MRI per MDT

# Tertiary / Reference

- At least two CR surgeons
- 50% or more of job, equate to 1.0 – 1.5 wte
- 35 – 100 referrals / month
- 2 pelvic floor clinics / week
- Joint pelvic floor clinics Biweekly
- Sub-specialty interest / service

# Services

- All should have specialist nurse / physio-led bowel retraining for defaecation disorders (mainly incontinence and obstructed defaecation)
- Adjuncts may include visual biofeedback, pelvic floor muscle therapy, direct neuromuscular (vaginal or perineal) electrical stimulation and minimally invasive forms of neuromodulation e.g. percutaneous tibial nerve stimulation.
- Trans anal rectal irrigation should be available offering both low and high volume therapy based on patient factors and preference.
- Each MDT group / centre should offer sacral neuromodulation and the full range of complex pelvic floor surgery
- Each surgical case should be agreed at MDM
- Surgery should be facilitated with combined operating lists for those with multi-compartment pathology requiring colorectal surgeon and urologist / urogynaecologist.
- Details of cases should be recorded in the future on a National Database for subsequent review and audit coordinated through The Pelvic Floor Society

# Reference Centre

- Revisional surgery for complex complications following primary mesh prolapse surgery
- Revisional surgery following sacral neuromodulation
- Anal and perineal reconstructive surgery incorporating tissue transposition
- Antegrade colonic enema (ACE) surgery
- Combined expertise (with gastroenterologists / neurologists) for the assessment of patients with complex primary and secondary neuro-gastroenterogical disorders e.g. Hirschsprung's disease, autonomic neuropathies,
- Combined expertise for the management of severe learning or psycho-behavioral disorders
- Transitional care for older children and adolescents