



EUROPEAN COLORECTAL CONGRESS

Spotlight on the colon

1 – 5 December 2019, St.Gallen, Switzerland

Sunday, 1 Dec. 2019

MASTERCLASS

09.00
When the appendix plays nasty: intraoperative surprises, immediate solutions, and long-term treatment options
Justin Davies, Cambridge, UK

09.40
All the secrets of the pelvic floor - common disorders and proven solutions
Julie Cornish, Cardiff, UK

10.20
taTME in 2020 – when the dust settles: current and innovative indications, implementation, and practical advices
Roel Hompes, Amsterdam, NL

11.30
Complete mesocolic excision: indications, surgical approaches, and pitfalls
Paris Tekkis, London, UK

12.10
The views of an Editor and the wisdom of an Expert: contemporary publications with the potential to change and improve practice
Neil Mortensen, Oxford, UK

14.00
To ostomize or not and when? The value and downside of a diverting stoma versus virtual ileostomy versus no stoma
Gabriela Möslein, Wuppertal, DE

14.40
Extended lymph node dissection: indications, surgical anatomy, and technical approaches
Peter Sagar, Leeds, UK

15.20
Is the longer the new better - how to safely extend the interval after neoadjuvant chemoradiotherapy prior to surgery for rectal cancer
Ronan O'Connell, Dublin, IE

16.30
The colorectal anastomosis: time-proven wisdom, innovative configurations, and salvage techniques
André d'Hoore, Leuven BE

17.10
All you need to know about stomas but never dared to ask
Willem Bemelman, Amsterdam, NL

17.50
The EBSQ Coloproctology Examination
Michel Adamina, Winterthur, CH

18.00
Wrap-up
Michel Adamina, Winterthur, CH

Monday, 2 Dec. 2019

SCIENTIFIC PROGRAMME

09.45
Opening and welcome
Jochen Lange, St.Gallen, CH

10.00
Pathophysiology and non-operative management of symptomatic uncomplicated diverticular disease
Robin Spiller, Nottingham, UK

10.30
Surgery of acute diverticulitis – evidence, eminence and real life
Willem Bemelman, Amsterdam, NL

11.00
Management of atypical diverticulitis
Dieter Hahnloser, Lausanne, CH

11.30
Hartmann reversal: open, laparoscopic or transanal?
Roel Hompes, Amsterdam, NL

13.30
The surgeon personality – influence on decision making, risk-taking and outcomes
Desmond Winter, Dublin, IE

14.00
SATELLITE SYMPOSIUM Medtronic

15.00
Clinical applications of image-guided cancer surgery
Cornelis van de Velde, Leiden, NL

16.00
Volvulus of the colon – a treatment algorithm
Peter Sagar, Leeds, UK

16.30
Hereditary colorectal cancer syndromes: tailored surgical treatment
Gabriela Möslein, Wuppertal, DE

17.00
Lars Pahlman and Herand Abcarian (2015)
Herand Abcarian, Chicago, US



17.20
Lars Pahlman Lecture
Steven Wexner, Weston, US

Tuesday, 3 Dec. 2019

09.00
Robotic-assisted versus conventional laparoscopic surgery for rectal cancer
Amjad Parvaiz, Poole, UK

09.30
Robotic multivisceral resection
Paris Tekkis, London, UK

10.00
SATELLITE SYMPOSIUM Karl Storz

11.30
Neoadjuvant chemotherapy for advanced colon cancer: clinical and pathological Results
Dion Morton, Birmingham, UK
Philip Quirke, Leeds, UK

12.30
Cytoreductive surgery and hyperthermic intraoperative chemotherapy for intestinal and ovarian cancers: lessons learned from 2 decades of clinical trials
Vic Verwaal, Aarhus, DK

14.30
Mechanical bowel obstruction: rush to the OR or stent and dine
Neil Mortensen, Oxford, UK

15.00
Controversies in IBD surgery
André d'Hoore, Leuven, BE

16.00
How to deal with IBD and dysplasia
Janindra Warusavitarne, London, UK

16.30
Perianal Crohn – avoiding delay and best surgical practice
Justin Davies, Cambridge, UK

17.00
Perianal Crohn – stem cells therapy and current medical approach
Gerhard Rogler, Zürich, CH

Wednesday, 4 Dec. 2019

09.00
Is anastomotic leak an infectious disease
Ronan O'Connell, Dublin, IE

09.30
Is it time to invest in robotic surgery?
Antonino Spinelli, Milan, IT

10.00
SATELLITE SYMPOSIUM Intuitive

11.00
New developments in robotic systems
Alberto Arezzo, Torino, IT

12.00
Posterior component separation for abdominal wall reconstruction: evolution from open to minimal invasive using the robotic platform
Filip Muysoms, Gent, BE

14.00
Coloproctology 4.0 – the networked surgeon
Richard Brady, Newcastle upon Tyne, UK

14.30
SATELLITE SYMPOSIUM Olympus

15.30
The elderly colorectal patient – functional outcomes and patient reported outcomes
Isacco Montroni, Faenza, IT

16.30
The microbiome and colorectal cancer
Philip Quirke, Leeds, UK

17.00
Surgical management of rectal endometriosis
Eric Rullier, Bordeaux, FR



17.30
EAES Presidential Lecture 3D printing for the general surgeon
Andrea Pietrabissa, Pavia, IT

Thursday, 5 Dec. 2019

09.00
Management of locoregionally advanced colon cancer
Torbjörn Holm, Stockholm, SE

09.30
ROUNDTABLE
Herand Abcarian, Chicago, US
Bill Heald, Basingstoke, UK

10.30
Artificial intelligence in colorectal surgery
Michele Diana, Strasbourg, FR

11.30
The mesentery in colonic diseases
Calvin Coffey, Luimneach, IE

12.00
Technical pearls and typical mistakes in minimal invasive colectomy
Antonio Lacy, Barcelona, ES

12.30
Choosing the right anastomotic technique in colon surgery
Roberto Persiani, Rom, IT

13.00
Precision surgery: past, present and future
Brendan Moran, Basingstoke, UK

13.30
Poster award
Michel Adamina, Winterthur, CH

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Current practice of continence advisors in managing faecal incontinence in the United Kingdom: results of an online survey

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Received 13 February 2017; accepted 6 July 2017; Accepted Article online 24 July 2017

Abstract

Aim To investigate the current practice of continence advisors in the United Kingdom.

Method Continence advisors were contacted by email or letter to participate in a survey. The survey contained 27 questions which addressed the practice of each continence advisor, their knowledge of continence management and the adequacy of their training.

Results Two hundred and twenty-six out of a total of 448 continence advisors (50.4%), responded. One hundred and seventy (76.9%) advisors treated both faecal and urinary incontinence, 51 (23.1%) treated urinary incontinence. Thirty-six advisors (16.1%) were lone workers and 130 (58.6%) had more than 10 years' experience. The majority of the advisors (75.6%) performed a digital rectal examination as part of their assessment. Regarding the management of faecal incontinence, 148 prescribed suppositories, 127 offered enemas and 147 advised on rectal irrigation. Most of the advisors taught pelvic floor exercises ($n = 207$) and urge resistance techniques ($n = 188$). One hundred and fifty-nine (87.4%)

prescribed the Peristeen Coloplast® anal plug and 78 (47.6%) prescribed the Renew® anal insert. Eighty-nine advisors (42.6%) felt they had not been adequately trained to provide a bowel continence service.

Conclusion The majority of continence advisors in the UK manage faecal incontinence. They are able to initiate a broad range of conservative treatment options; however, almost half of the advisors who answered the survey felt inadequately trained and may be better supported by further training.

Keywords Faecal incontinence, continence adviser, training, conservative treatment

What does this paper add to the literature?

Continence advisors should be able to perform a basic assessment and offer most of the conservative treatments for faecal incontinence. More than half of those surveyed felt they were inadequately trained. Support for their continued education may be needed to improve the management of faecal incontinence at primary care level.

Introduction

Faecal incontinence (FI) is a common symptom. It is most common in the elderly, with a prevalence of 1–18% [1–4]. Concomitant urinary incontinence is common and may occur in 6.5% of women approximately 15–23 years after their first vaginal delivery [5]. Patients may not receive adequate treatment for FI for many reasons. These include social stigmatization, embarrassment or failure to recognize this as a treatable condition [6].

FI is a condition frequently encountered by coloproctologists. There are a variety of invasive treatments available. These include sphincter repair, sacral nerve stimulation and artificial bowel sphincter implantation [7–10]. However, the benign nature of this problem and the varying degrees of severity, mean that conservative management is usually pursued first [11]. It is likely that ongoing conservative treatment and follow-up in the community are also required to achieve a successful outcome following any surgical interventions.

Continence advisors (CA) provide primary care in the community across the UK for patients seeking help for their incontinence symptoms [12]. Most are clinical nurse specialists who work at general practice surgeries

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or health centres and teach pelvic floor exercises and introduce patients to continence pads and products. The service is well established for urinary incontinence, and in recent years has provided care for FI [13,14]. Many of those who have not been referred to hospital are managed by these practitioners. However, there are no available data to assess the structure and competence of this practice.

Recent National Health Service (NHS) commissioning guidelines place great emphasis on CAs delivering first-line therapy in the community setting [15,16]. They are expected to have systems in place to ensure that patients who are at high risk of FI are identified. They should be able to carry out a baseline assessment to include a history of bowel symptoms, including any red flags/signs of bowel cancer. The patient's bowel habit should be established and there should be a medication review. A visual anal and digital rectal examination to exclude faecal impaction and overflow and assess anal tone and squeeze should be undertaken.

The document further recommends that initial bowel management should include instruction on dietary modification, supervision of appropriate medications and advice on the use of continence products. All patients should be offered reassurance and lifestyle advice, access to help with relevant physical, emotional, psychological and social issues, advice about relevant support groups and advice on self-management of symptoms.

We aimed to investigate the current practice of CAs in the community in the UK. This assessment included the extent of treatment options they offered and if there was any need for further support for this service.

Method

An online survey was constructed using Survey Monkey® (Online Survey Services, Palo Alto, California, USA). The questions used were composed by the senior authors, all of whom have extensive experience in the management of FI. Firstly, relevant topics were discussed and we chose to focus on three topics, namely assessment, treatment and education. In addition, baseline demographic data about the CAs were included. The questions were drafted by two of the authors and presented at weekly pelvic floor departmental meetings where biofeedback nurses, pelvic floor physiotherapists, colorectal surgeons and a gastroenterologist gave feedback on the design of the questions and the study as a whole. In total five meetings were held. In the final version, the survey consisted of 27 health-related questions which were separated into seven different sections. The survey was designed to obtain a snapshot of the current

practice of CAs and it was not intended to be a validated questionnaire.

The respondents were not obliged to answer each question; therefore the denominators of the numbers expressed as percentages in the results section are the number of responders for each question. CAs in the UK were identified from the authors' departmental database and from the UK Association of Continence Advisors (ACA). All CAs were invited to complete the online survey via email, mail and phone calls. A £50 voucher was given to a randomly chosen respondent, in an effort to increase the response rate. Email invitations and reminders were sent via Survey Monkey® eight times over a 3-month period. At the end of this 3-month period, the survey was closed. Responses were collected and analysed, initially using the Survey Monkey® software and then again with Excel (Microsoft Corporation, Redmond, WA, USA). The survey questions are outlined in Table 1.

Results

The questionnaire was split into seven different sections (demographics, assessment, treatment, factors influencing choice of treatment, educational support, treatment failure and adequacy of training.) There was also an additional question asking for general feedback. Between October 2015 and December 2015 (3 months), 226 responses out of 448 UK CAs (50.4%) were collected. For each question we had different rate of responders with a median of 213 (range 164–226) responders.

Demographics

Of the 226 responders, 93.2% were women: 4.9% were between 30 and 39 years old, 62.8% were between 40 and 59 years, 25.6% were between 50 and 59 years and 6.7% were over 60 years old. Some 91.1% were previously employed as nurses, while the remainder had been specialist nurses or physiotherapists.

Of the CAs, 13.1% had less than 5 years' experience as a CA, 28.4% had between 5 and 10 years' experience, 46.9% had between 10 and 20 years' experience and 11.7% had more than 20 years' experience. Thirty-six (16.1%) worked alone, while 177 (79.0%) worked with other nurses, physiotherapists or a general practitioner, 10 (4.5%) worked alone as well as with other nurses or physiotherapists, and 1 worked with a GP. Fifty-one CAs (23.1%) treated urinary incontinence, while 76.9% treated both urinary incontinence and FI.

Regarding their service, 6 (2.7%) of the CAs see an average of fewer than five patients with urinary incontinence per month, 59 (26.8%) see between 5 and 20

Table 1 The online survey. The questionnaire was split into seven sections.

Demographics	
Q1	Your gender is: a. Male b. Female
Q2	Your age is: a. < 30 years b. 30–50 years c. > 50 years
Q3	Address details: City/town _____ Post code _____
Q4	What is your background as a continence advisor? Nurse/Physiotherapist/Other
Q5	How many years have you been a continence advisor? < 5, 5–10, 10–20, > 20
Q6	What is the setup of your current practice? a. One worker b. With other therapists c. With GP (same surgery)
Q7	Are you treating: a. Urinary incontinence b. Faecal incontinence c. Both urinary and faecal incontinence
Q8	How many patients in an average month do you see with urinary incontinence and how many with faecal incontinence? a. Urinary: < 5, 5–20, 20–50, > 50 b. Faecal: < 5, 5–20, 20–50, > 50
Assessment	
Q9	Do you do: a. Digital examination (PR) [Yes I do/Yes I do and I am feeling confident/No, I do not] b. Diagnose a rectal prolapse [Yes I do/Yes I do and I am feeling confident/No, I do not]
Q10	Do you provide EMG anal sphincter [Yes/No]
Q11	Treatment Do you prescribe any of the following medications? Loperamide Co-phenotrope Colesevelam Cholestyramine Probiotics Charcoal Aloe vera
Q12	Do you instruct patients to use: a. Suppositories b. Enemas c. Irrigations
Q13	Do you give any dietary advice? a. Low-fibre diet b. High-fibre diet c. FODMAP diet

Table 1 (Continued).

Q14	Do you offer any psychological support? a. Sexual dysfunction b. Body image c. Anxiety d. Depression
Q15	Do you teach anal pelvic floor exercises/sphincter exercises? [Yes/No]
Q16	Do you teach any urge resistance techniques? [Yes/No]
Q17	Do you provide: a. Electrical stimulation of the anal sphincter b. Percutaneous tibial nerve stimulation (PTNS)
Q18	Do you recommend 'Squeezy', the NHS pelvic floor exercise app? [Yes/No]
Q19	Do you recommend anal plugs? [Yes/No] If 'Yes', which one: a. Coloplast b. Renew
Q20	Do you provide pads for faecal incontinence? [Yes/No]
Q21	Do you recommend 'Shreddies' pants? [Yes/No]
Factors influencing treatment choice	
Q22	How would you choose a product? [choose one for each category, 1 = least important, 2, 3, 4, 5 = most important, do not know] a. Marketing b. Cost c. Patient's choice/preference d. Practice surgery's choice/preference e. Sponsorship
Treatment failure	
Q23	What percentages of your patients are reported on to hospital-based specialists? 0–20, 20–40, 40–60, 60–80, 80–100
Educational support	
Q24	Do you attend any of the following courses? [Yes/No/Would like to/Unable (funding, time). Choose one for each category] a. Courses run by manufacturer b. Hospital courses c. GP courses d. University
Q25	Do you feel you are supported in your daily practice? [Yes/No/Not sure]
Q26	Do you feel you have had adequate training to provide a bowel continence service? [Yes/No] General feedback
Q27	Any other comments or suggestions? _____ (max. 100 words)

patients, 98 (44.6%) between 20 and 50 patients and 57 (25.9%) more than 50 patients with urinary incontinence per month. With regards to FI, 66 (33.5%) see

fewer than five patients, 107 (54.3%) between 5 and 20 patients, 18 (9.1%) between 20 and 50 patients, with 6 (3.1%) seeing more than 50 patients with FI per month.

Assessment

A total of 167 (75.6%) CAs perform a digital rectal examination as part of their assessment, and 159 (95.2%) of them felt confident in their ability to do this. One hundred and thirty-one (61.2%) assessed patients for the presence of a rectal prolapse; of these, 114 (87.0%) felt confident in their ability to do this correctly. Electromyography (EMG) of the anal sphincter was used by 9.1% of CAs.

Treatment

Loperamide was recommended regularly by 83 (39.0%) of respondents. Just over 3% ($n = 6$) prescribed a range of other medications such as co-phenotrope, colesevelam and cholestyramine. Probiotics were recommended by 64 (30.2%) of CAs, charcoal was recommended by 6 (3.1%) and 16 (8.2%) recommended aloe vera.

Most practitioners were able to give advice on diet, including low-fibre diets (156, 77.6%), high-fibre diets (185, 85.3%) and the FODMAP diet (51, 30.2%).

With regard to the use of suppositories, enemas and rectal irrigation, 148 (69.5%) prescribed glycerin suppositories, 127 (61.4%) prescribed phosphate enemas and 147 (68.1%) advised on rectal irrigation. The remaining results on the treatments available are shown in Table 2. It should be noted that 221 out of a total of 226 respondents were able to offer treatments for FI.

Factors influencing treatment choice

CAs were asked what guided the choice of commercial products they use. They were asked to rank the following from 1 (least important) to 5 (most important): marketing, cost, patient's choice/preference, practice surgery's choice/preference, and sponsorship. Patient's choice/preference scored the highest (weighted average 4.22) as 48.7% of CAs stated this was the most important factor when they chose a products. The least important was sponsorship (weighted average 2.23) with 62.4% of CAs considering it to have the lowest importance. The influence of marketing was the second least important factor, with nearly half of the CAs (45.9%) stating it was the least important. Practice surgery choice/preference was less important, with 47.1% of CAs giving this a ranking of either 1 or 2, whilst 39.1% of CAs considered cost to be a more important factor.

Table 2 The treatments offered by continence advisors.

	Number of positive responses	Percentage of respondents
Dietary advice		
Low-fibre diet	156	77.6
High-fibre diet	185	85.2
FODMAP diet	51	30.2
Psychological support		
Sexual dysfunction	110	52.9
Body image	102	49
Depression	98	47.6
Anxiety	111	53.1
Treatments		
Pelvic floor/sphincter exercises	207	93.7
Urge resistance techniques	188	84.3
Tibial nerve stimulation	21	9.9
Pelvic floor exercise app*	69	31
Peristeen coloplast anal plug®	159	87.4
Renew anal insert®	78	47.6
Incontinence pads	156	71.6

*Squeezy© (Propagator Ltd, London, UK).

CA practice for treatment failures was then assessed. One hundred and sixteen (54.5%) CAs referred 0–20% of their patients onto a hospital-based specialist, 59 (27.7%) referred between 20% and 40% to a hospital specialist, 16 (7.5%) referred between 40% and 60% to a hospital specialist, 11 (5%) referred between 60% and 80% to a hospital specialist, while 11 (5%) referred between 80% and 100% of their patients who failed therapy to a hospital specialist.

Educational support

One hundred and ninety-seven (90.0%) of those who responded attended courses organized by industry, 121 (59.6%) attended courses run by a hospital and 117 (57.6%) attended courses run by a university. Eighty-nine (46.1%) had received sponsorship to support their attendances. When asked if they felt supported in their daily practice, 165 of the 223 respondents (74.0%) felt they were; 29 (13.0%) answered no and 29 (13.0%) were unsure. Eighty-nine (42.6%) felt they had not been adequately trained to provide a bowel continence service.

General feedback

Open feedback was collected from 53 respondents. The more useful comments relating to the purpose of the study are outlined below. Five said they were willing to attend educational courses to improve their skills but

had difficulty acquiring funding. One suggested that educational courses should be free. Two of the CAs highlighted the fact that they are able to perform a vaginal digital examination and that they have the skills to diagnose a rectocele. One thanked the survey organizers because she was unaware the Squeezy© app existed. That CA downloaded and used this app in her practice, to good effect.

Discussion

This study used an online survey to assess the current practice of CAs in the UK. The study was undertaken because CAs have been given a very significant role to play in the community management of FI [14,17–19], but as yet there are no available data to assess the structure and competence of this practice. The results of this study broadly suggest that CAs provide a reasonable but not optimal service for those with FI.

The majority of CAs reported they are able to confidently perform a digital rectal examination and to look for rectal prolapse. This survey demonstrated that loperamide and probiotics were the most commonly utilized medications. However, they were prescribed by only 39% and 30% of respondents, respectively. In addition, there appeared to be a poor awareness of other alternatives. This may be accounted for by the fact that many CAs were unable to prescribe and were dependent upon the patient's general practitioner to do this. That said, around two-thirds of CAs were able to offer suppositories, enemas and rectal irrigation, which are important treatments for FI [20]. The majority of CAs seemed happy to advise on basic dietary manipulation. However, only around 50% of respondents were prepared to address this.

Over 70% of responding CAs were happy to recommend the Peristeen Coloplast® anal plug and 35% were happy to offer the new Renew® anal insert. This may reflect the fact that the latter is relatively new. It is interesting to note that the CAs considered patient choice to be the most important factor in deciding on continence products, despite 90% of them having attended industry-sponsored courses. Many CAs appear to have found the Squeezy© app useful; this is currently recommended by the NHS [21]. As the use of smart phone technology increases over time, the relatively low take-up of around 30% should improve.

Three-quarters of CAs felt they were adequately supported in their practice; however, just over half felt they had received adequate training, mainly run by industry. It was surprising to find that when their treatment fails, only 5% of CAs referred the majority of such patients to a hospital specialist. More than half of the CAs referred

up to 20% of patients who failed their treatment. The feedback part of the survey suggested that more than half felt the need for more training, and for this to be more accessible.

There are some limitations to this study. First of all, only half of the CAs approached responded. Therefore, the results may reflect practice of those CAs who are keen and active. An online survey was a useful approach for gathering responses from all around the country, but this may have put off some people who were internet shy. The survey was semi-structured from the hospital specialist perspective. Although we gained further insight into their practice from the free text of the survey, a more comprehensive assessment could be done via a qualitative approach, surveying not only CAs but also patients and hospital specialists in order to gain further knowledge of their practice and how best we could support and integrate their service to achieve the best outcome for patients.

In conclusion CAs are an important part of the management of FI. They are able to utilize many of the current treatments. There is room for improvement, and this may be achieved by focused and more available education.

Conflicts of interests

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. The authors declare that there is no conflict of interest regarding the publication of this paper.

References

- 1 Perry S, Shaw C, McGrother C *et al*. Leicestershire MRC Incontinence Study Team. Prevalence of faecal incontinence in adults aged 40 years or more living in the community. *Gut* 2002; **50**: 480–4.
- 2 Madoff RD, Parker SC, Varma MG, Lowry AC. Faecal incontinence in adults. *Lancet* 2004; **364**: 621–32.
- 3 Whitehead WE, Borrud L, Goode PS *et al*. Pelvic Floor Disorders Network. Fecal incontinence in US adults: epidemiology and risk factors. *Gastroenterology* 2009; **137**: 512–7, 517.e1–2.
- 4 Sharma A, Marshall RJ, Macmillan AK, Merrie AE, Reid P, Bissett IP. Determining levels of fecal incontinence in the community: a New Zealand cross-sectional study. *Dis Colon Rectum* 2011; **54**: 1381–7.
- 5 Vøløyhaug I, Mørkved S, Salvesen Ø, Salvesen K. Pelvic organ prolapse and incontinence 15–23 years after first delivery: a cross-sectional study. *BJOG* 2015; **122**: 964–71.
- 6 Johanson JF, Lafferty J. Epidemiology of fecal incontinence: the silent affliction. *Am J Gastroenterol* 1996; **91**: 33–6.

- 7 Malouf AJ, Norton CS, Engel AF, Nicholls RJ, Kamm MA. Long-term results of overlapping anterior anal-sphincter repair for obstetric trauma. *Lancet* 2000; **355**: 260–5.
- 8 Madoff RD, Rosen HR, Baeten CG *et al.* Safety and efficacy of dynamic muscle plasty for anal incontinence: lessons from a prospective, multicenter trial. *Gastroenterology* 1999; **116**: 549–56.
- 9 Wong MT, Meurette G, Wyart V, Glemain P, Lehur PA. The artificial bowel sphincter: a single institution experience over a decade. *Ann Surg* 2011; **254**: 951–6.
- 10 Dudding TC, Hollingshead JR, Nicholls RJ, Vaizey CJ. Sacral nerve stimulation for faecal incontinence: patient selection, service provision and operative technique. *Colorectal Dis* 2011; **13**: e187–95.
- 11 Norton C, Thomas L, Hill J. Guideline Development Group. Management of faecal incontinence in adults: summary of NICE guidance. *BMJ* 2007; **334**: 1370–1.
- 12 Association for Continence Advice: driving excellence in bladder and bowel care. <http://www.aca.uk.com/> (accessed August 2016 and June 2017).
- 13 Moore KH, O'Sullivan RJ, Simons A, Prashar S, Anderson P, Louey M. Randomised controlled trial of nurse continence advisor therapy compared with standard urogynaecology regimen for conservative incontinence treatment: efficacy, costs and two year follow up. *BJOG* 2003; **110**: 649–57.
- 14 Eggertson L. Inspiring confidence to overcome incontinence. Nurse continence advisors help their patients regain control. *Can Nurse* 2014; **110**: 18–20.
- 15 England NHS. *Faecal Incontinence Guidelines*. <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/11/EICC-guidance-final-document.pdf> (accessed June 2017).
- 16 *Faecal Incontinence Guidelines*, 2014, reviewed January 2017. Royal College of Surgeon. <https://www.rcseng.ac.uk/library-and-publications/college-publications/docs/faecal-incontinence-guide> (accessed June 2017).
- 17 Allison M. Conservative management of faecal incontinence in adults. *Nurs Stand* 2010; **26**: 49–56; quiz 58, 60.
- 18 Duelund-Jakobsen J, Worsoe J, Lundby L, Christensen P, Krogh K. Management of patients with faecal incontinence. *Therap Adv Gastroenterol* 2016; **9**: 86–97.
- 19 Duelund-Jakobsen J, Haas S, Buntzen S, Lundby L, Bøje G, Laurberg S. Nurse-led clinics can manage faecal incontinence effectively: results from a tertiary referral centre. *Colorectal Dis* 2015; **17**: 710–5.
- 20 Abrams P, Andersson KE, Birdir L *et al.* Fourth International Consultation on Incontinence. Fourth International Consultation on Incontinence Recommendations of the International Scientific Committee: evaluation and treatment of urinary incontinence, pelvic organ prolapse, and fecal incontinence. *Neurourol Urodyn* 2010; **29**: 213–40.
- 21 Chartered Society of Physiotherapy. <http://www.csp.org.uk/news/2013/10/14/nhs-trust-develop-android-version-pelvic-exercise-iphone-app> (accessed January 2017).