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## **Developing a National Colorectal Educational Agenda: A Survey of the ACPGBI**

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### **What does this paper add to the literature?**

This paper reports the perceived educational needs, knowledge and skills gaps and current barriers of the UK and Ireland colorectal community. The results form a framework for ACPGBI coloproctology tutors to develop an educational portfolio in keeping with the organisation's goal to improve knowledge and treatment of bowel disease.

### **Abstract**

**Aim:** In order to develop its education agenda, the ACPGBI sought the opinion of its members on current coloproctology training needs. The aims of this study were to canvass multi-disciplinary needs and explore the perceived gaps and barriers to meeting them.

**Method:** A learner needs analysis was performed between July 2015 and October 2016. A bespoke electronic survey was sent to 1,453 colorectal health care professionals (ACPGBI membership (1,173), colorectal nurse specialists and allied health professionals (NAHP) (261) and regional chapter-leads (19)) seeking their needs, experiences and barriers to training across the coloproctology disciplines.

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Results: 390 responses were received (26.8% overall; 180 consultants/trainees (15%); 196 NAHP (75%); 14 (74%) chapter-leads). Lack of funding and difficulties in obtaining study leave were the most frequently reported barriers to course and conference attendance. Transanal total mesorectal excision and laparoscopic training were the top educational needs for consultants and trainees respectively. 79% of NAHP respondents reported education gaps on a broad range of clinical and non-clinical topics. NAHP lacked information on relevant training opportunities and 27% felt available courses were insufficient to meet their educational needs. Wide heterogeneity in ACPGBI chapter composition and activity was reported. All groups felt the ACPGBI should increase the number of courses offered with coloproctology knowledge updates commonly requested.

Conclusion: A series of training needs across the coloproctology disciplines have been identified. These will underpin the development of the educational agenda for the ACPGBI.

## **Introduction**

The accelerating change in coloproctology practice, surgical techniques and novel technology requires a life-long education approach that extends beyond completion of training for colorectal specialists. Present NHS demand and financial pressures together with working time constraints risks impacting the provision of coloproctology education and training. These challenges have been recognised by the ACPGBI. A new coloproctology tutor role has been created and tasked with the creation, development and roll out of a bespoke education portfolio to meet the needs of the profession and ACPGBI membership.

A timely opportunity exists for the ACPGBI to facilitate and coordinate a cohesive educational approach among all the key stakeholders in coloproctology training, including course providers, industry and the Royal Colleges of Surgeons, as well as other relevant associations and societies. This is in line with the ACPGBI's mission statement that improving training will lead to the development of excellence in the prevention and care of bowel disease for the benefit of patients and the public.

In order to shape the portfolio, the Association sought the opinion of its members, to actively explore the educational needs of the coloproctology community. Since an established UK educational curriculum for trainees (Intercollegiate Surgical Curriculum Programme (ISCP)) with clear and defined educational requirements already exists, this study focused on colorectal consultant and nurse specialists. The aims of this study were to ascertain the top educational needs of the colorectal community across the UK and Ireland and identify the perceived knowledge and skills gaps and the barriers to fulfilling them. This will allow the ACPGBI, in collaboration with other key stakeholders, to develop its educational portfolio.

## **Methods**

A learner needs analysis was conducted [1]. Bespoke web-based questionnaires were developed using an online tool ([www.surveymonkey.net](http://www.surveymonkey.net)) which was administered in three stages.

### **ACPGBI membership**

In July 2015, the entire ACPGBI membership received an email invitation to participate.

Members were asked to report on: (i) details of attended courses over the past two years including funding source(s), (ii) type of simulations and course accreditation, (iii) access to education: accessibility of education events and the barriers to attending courses, (iv) ways of learning: how they learn new skills and plans for achieving current needs, (v) gaps in education and learning needs: for knowledge, technical and non-technical skills and (vi) how the ACPGBI can assist them to meet these challenges in the future (appendix 1a). The Duke's club were not formally consulted in this exercise, as a well-established UK educational curriculum for trainees (ISCP) already exists.

### **Nursing and allied health professional results**

To broaden the survey and expand awareness of the organisation, 261 non-ACPGBI colorectal nurse specialists (CNS) and nursing and allied health professionals (NAHP) from 160 acute trusts were contacted in November 2015 and invited to complete a similar survey (appendix 1b). They were additionally asked if they were aware of the ACPGBI Nurses and Allied Health Professionals Group and what it offered.

### **ACPGBI chapter leads**

Given their role in the local delivery of coloproctology training, all 19 chapter-leads were sent the survey in October 2016 which also explored their chapter's format, composition

and educational activities. It also specifically asked on the educational role and contribution of trainees and NAHP in each chapter (appendix 1c).

### **Data analysis**

Results were analysed by knowledge, technical and non-technical skill domains further separated into three groups; consultants/trainees, NAHP and chapter-leads. Quantitative data was collated and analysed using descriptive statistics (SPSS™ v19.0, IBM®, US).

Qualitative answers underwent thematic analysis to identify frequently reported factors. All results were presented regularly to the ACPGBI council and education and training committee and targeted training goals, priorities and portfolio strategies were identified.

### **Results**

Of the 1453 survey recipients, a total of 390 (27%) anonymous responses were obtained.

Response rate varied according to professional background with 180 (15%) consultants and trainees; 196 (75%) NAHP and 14 (74%) chapter-leads completed the questionnaire.

- **ACPGBI membership**

153 consultants and 27 trainees (ST6-post CCT) completed the survey. A breadth of consultant experience was captured (24% ≤ 5 years, 28% 5 to 10 and 47% 10 ≤ years).

Respondents were evenly distributed across 18 of the 19 ACPGBI chapters. The majority (84%) attended two to three courses over the last two years, with the main objective to

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improve their knowledge and technical skills. 78% of courses were held in the UK with 24% not continuing professional development (CPD) accredited. 45% attended a course purely to meet CPD requirements.

The preferred methods and modes for learning new skills were through discussion and/or observation of colleagues and attending conferences or courses. Live operative demonstrations and multi-professional panel discussions were popular formats with clinical immersion and cadaveric-model courses the most common form of technical skills training.

60% felt they had sufficient information about relevant educational opportunities to support their development and clinical practice. The most common source was word of mouth through consultant colleagues.

#### ***Access to education and barriers to learning***

Two main barriers were identified. Lack of funding and difficulties obtaining study leave limited accessibility to courses and conferences they wished to attend. Half of consultant course attendances were self-funded although only half of respondents fully utilised their study budget (median £600 per annum). 55% encountered difficulties in accessing their budgets and found available funds insufficient to cover necessary costs. One third of course attendances were employer, industry or sponsor funded. 75% of trainees self-funded all course and conference attendances. Further areas for improvement were the perceived poor communication of course information and lack of relevant courses. Trainees reported courses were inaccessible due to oversubscription (45%) and distance (27%).



### ***Learning needs***

Training in trans-anal total mesorectal excision (TaTME) was the top educational need among consultants (52%) with laparoscopic fellowships for colorectal surgery forming the top need for trainees. General coloproctology knowledge updates covering the latest research were desired. Respondents also identified a need for general surgical education opportunities as well. Formal management and leadership training was the highest stated priority for non-technical skills.

### **Nursing and allied health professional results**

196 NAHP responded to the survey of which 95% identified themselves as CNS. 65% had over 10 years' experience in their role with 72% holding a bachelor's degree and 21% completing a higher degree. 50% were not previously aware of the ACPGBI NAHP group. 50% had attended a course relating to coloproctology in the previous two years. The most common educational activities undertaken were study days (82%) and coloproctology conferences (64%). No NAHP member reported attending practical skills training.

Differences in identifying educational opportunities were seen. Primary through attendance at other courses (85%), journal adverts (81%) or internet searches (79%). Web based learning and social media was the least desired method for teaching materials amongst NAHP and consultant groups.

### ***Access to education and barriers to learning***

Similar barriers to training were identified with 82% reporting that they had insufficient funding to attend desired educational activities. Only 15% had an allocated training budget available. 54% self-funded with 36% receiving industry funding to attend training. 50% of NAHP lacked information on relevant training opportunities and 27% felt available courses were insufficient to meet their educational needs. 54% felt unable to attend external training opportunities due to service pressures or no study leave provision.

### ***Learning needs***

79 % of NAHP highlighted gaps in their coloproctology education. Self-perceived knowledge gaps covered a range of non-clinical (management and leadership, legal issues, research and audit) and clinical (stoma care, enhanced recovery, tissue viability and general surgery) topics. Developing and supporting the Advanced Nurse Practitioner role in coloproctology was one of the top requirements of NAHP.

### ***ACPGBI chapter leads***

14 of the 19 chapter-leads (74%) responded to the survey. 50% were newly in post with 17% having served as lead for more than the traditional three-year term. The majority of the leads have held a consultant post for more than ten years. 64% had a consultant to trainee mix of 3:1 with all chapters reporting 75% or more of their composition was consultants. Eight chapters had appointed a trainee representative with five having a NAHP representative.

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All chapter-leads aimed to link with their chapter members to highlight national issues to their region, provide updates on ACPGBI policies and to promote the society through membership interaction.

All chapters met annually with one third meeting between 4-6 monthly. Average reported attendance was 35 (range 10-75) with half of meetings having non-ACPGBI members present. 25% of meetings were ACPGBI CPD accredited and 40% collected delegate feedback. Half of chapter meetings were supported by industry funding averaging £1000.

All respondents perceived an important function of the ACPGBI chapter was the promotion of education and training by offering courses, CPD opportunities and educational meeting(s). However, only five leads (26%) felt that their chapter currently fulfilled these objectives.

#### ***Barriers in local implementation of education***

Four themes were identified; lack of time and administrative support; current NHS service pressures; lack of enthusiasm from chapter members and large region geography. A majority (70%) felt a standardised chapter structure, activity and composition would be helpful, including a clear role for trainees and NAHP within the structure of the chapter. 75% of chapter leads personally organised their meetings without any additional support.

#### **Identified areas and steps for the ACPGBI**

Tables 1 and 2 summarise the key findings of this exercise and provides a task list for the ACPGBI coloproctology tutors together with the education and training committee. All

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participants were asked how the ACPGBI could help their future training. An increased number of ACPGBI courses were the most frequent response from all groups.

## **Discussion**

Developing an educational portfolio for the ACPGBI is one of the Association's top priorities. A learner needs analysis approach was commissioned to consult with the membership to identify self-reported educational needs. The ACPGBI is already using this data to develop a multi-dimensional, cohesive educational strategy in order to fulfil the educational aspirations of the whole colorectal community.

A multi-disciplinary approach ensured that the opinions of all coloproctology professionals were included and their knowledge, technical and non-technical skills needs were explored. The majority of respondents' self-fund all course and conference attendances. Despite this, there remains a strong appetite to attend events. A lack of capacity and regional accessibility was highlighted by this exercise, both of which can be addressed by the ACPGBI.

Clear messages were identified regarding the lack of co-ordination and communication about training events in coloproctology. Members proposed that the ACPGBI should develop a communication platform to share such information, such as a central website to facilitate information sharing about upcoming courses and educational opportunities and to review qualitative feedback on previous events. The platform could also promote chapter activities and networking among the members. Early awareness may improve attendances through facilitating early planning and securing study leave. In keeping with previous

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findings, there is little interest in social media platforms amongst consultant and nurse respondents [2]. The ACPGBI should lobby for NAHP study leave provision given the large majority have no access to an allowance or associated funds.

Our findings identify an opportunity for the ACPGBI, subject to quality assurance processes, to increase the provision of CPD accreditation. 24% of courses and 75% of chapter activity were not CPD accredited. It is unclear if this represents problems with awareness and/or difficulties obtaining CPD approval.

Presently, there is no recognised structure for post completion of surgical training which risks the development of knowledge and skills gaps among consultants. This led to the LapCo [3] and LoREC [4] training initiatives. Following their successful completion, it was important to identify current educational needs. Consultant members stated TaTME is their current top requirement. TaTME has attracted substantial interest due to the perceived benefits for short and long-term outcomes in patients with low rectal cancer [5]. The introduction of TaTME needs to be approached carefully, as surgeons need to be adequately trained and mentored to ensure safe practice and optimal patient outcomes [6].

Continual support of accredited laparoscopic colorectal fellowships for higher surgical trainees was identified as an important educational need. These schemes were designed to enhance the laparoscopic skills of senior trainees and are proven to be safe and effective in shortening learning curves [7-9]. Despite their popularity, sustainability is unclear as relevant industry has withdrawn funding and alternative support is still required. A collaborative approach with other educational stakeholders such as the Royal College of Surgeons could be considered to re-instate these educational opportunities.

To enhance awareness and capture a broader range of views, this consultation was expanded to include NAHP in all acute trusts in the UK and Ireland. In keeping with other disciplines, an increase in ACPGBI course provision was the most frequently identified wish. The majority of NAHP highlighted gaps in their education across a wide range of clinical and non-clinical areas. Supporting the role of advanced nurse practitioner was identified as a pressing need by the NAHP to include the enhanced recovery nurse specialist, theatre practitioner and endoscopy nurse practitioner. Additional wishes were accessibility to information regarding educational activities, the provision of national standards for best practice, collating an evidence-based to support research and service improvement, streamlining cost-effective education and provision of support and NAHP advice services for professional issues and career progression. The results emphasise the importance of a multi-dimensional approach to overcome barriers and to improve access to training and education for ACPGBI members.

Consulting chapter-leads was essential to explore the current regional activities and local barriers. Although all leads perceived an important function for the ACPGBI chapter was supporting education and training, only 26% felt that their chapters currently fulfilled this objective. The main barriers were a lack of time and administrative support together with current NHS challenges. This consultation project has also highlighted areas of inconsistency of provision of educational activities across different chapters. Coordinating educational activities of each chapter could meet some of the identified gaps. Involvement of trainees and nurses in the design and conduct of regional educational activities could potentially support chapter-leads and contextualise the relevance of the educational

activities to address all disciplines in coloproctology in each chapter. This exercise has identified areas that central ACPGBI assistance could support local chapter leads.

A limitation of this study was the response rate of 27%, which may limit generalisability and be prone to response bias. This is comparable with previous ACPGBI and surgical society membership surveys [10-14]. We received responses from 153 consultants and 196 specialist nurses and we believe that this provided a fair representation of the two disciplines. The response rate of nurses and chapter leads was approximately 75% but the representation of trainees was very small. As the main focus of this study was to develop an educational agenda with specific attention to consultants and nurses, since the well-established ISCP educational curriculum for trainees already exists. Although disappointing, the low response from trainees was not considered to impact on the main focus of this study. This is not to disregard the educational needs of trainees, which are comprehensively addressed through the well-established ISCP educational curriculum for trainees. Whilst an argument could be made that a Delphi exercise [14] would have been appropriate, we felt a broad grassroots approach would be more informative than an expert consultation. The main objective of the study could also be achieved without additional rounds of questioning. Qualitative exploration of many of the questions is likely to have given a greater understanding of the topic but was not considered appropriate for the initial membership consultation and is beyond the scope of this project. Although learners themselves are the main stakeholders in their education, other players, such as course providers, deaneries, industry, relevant societies and Royal Colleges must also be consulted to ensure that what has been proposed aligns with all organisations. Although this study

was designed to identify UK educational priorities and the challenges and gaps in training are focused to the NHS, we believe that other findings of this study could be applicable to other countries. The identified educational needs (such as developing communication platforms, central co-ordination and course development, coloproctology knowledge and training initiatives for TaTME) are generic and contemporary and thus are likely to apply to other regions.

### ***Future directions***

The outcomes of this project are already being actioned to develop the educational framework of the ACPGBI (Table 2). Firstly, a re-design project of the ACPGBI website has been undertaken, acknowledging the needs of accessible information concerning educational and training activities. The M62 course has been re-launched as the “ACPGBI motorway coloproctology course” to provide affordable educational opportunities for all its members. The course location will rotate around the regions to improve accessibility with an increased capacity that should allow a reduction in cost. Following this survey, a structured training programme for TaTME [6], based on an agreed framework of training curriculum has been proposed and agreed by the ACPGBI with a national TaTME pilot training programme set to run in the UK in the near future. Additionally, the ACPGBI has been in discussion with the RCS England to explore collaborative approaches to address the issue of laparoscopic colorectal fellowships for the benefit of members of both organisations.



Supporting information

Appendix 1a – Survey questions for ACPGBI consultant and trainee members.

Appendix 1b – Survey questions for NAHP and CNS.

Appendix 1c – Questions submitted to ACPGBI chapter leads.

Table 1: Top 10 Key educational needs in Coloproctology
1. Improving access to relevant courses and education events across all disciplines, including information and funding support
2. Support practical skills training for consultants in trans-anal TME
3. Improve access to laparoscopic colorectal fellowships for senior trainees
4. Support lower GI endoscopy training for colorectal trainees
5. Provide regular coloproctology updates encompassing latest research
6. Provision of best evidence guidelines with benchmarking and audit
7. Develop specific NAHP focused colorectal knowledge courses
8. Developing and supporting the coloproctology Advanced Nurse Practitioner role
9. Support bespoke general surgery and non-clinical training for management, leadership and medicolegal issues across all disciplines
10. Support the delivery of regional educational activities across the chapters

Table 2: Proposed Educational Curriculum based on survey findings
<p>1. Develop a coordinated information hub that can serve multiple purposes:</p> <ul style="list-style-type: none"><li>a. Containing all upcoming courses, conferences and chapter activities with regular email dissemination of upcoming events</li><li>b. A platform for educational and educational materials</li><li>c. Promoting networking among members across the chapters to support professional issues and career development</li></ul>
<p>2. Facilitate access and affordability of training and educational activities in coloproctology including:</p> <ul style="list-style-type: none"><li>a. Increase provision of ACPGBI knowledge courses through the motorway coloproctology courses</li><li>b. Support fellowships and advanced nurse practitioner roles through partnership with other educational stakeholders in coloproctology</li></ul>
<p>3. Support training initiatives to colorectal consultant for novel procedures to ensure safe introduction of novel techniques such as trans-anal total mesorectal excision</p>
<p>4. Structure and enhance the quality of chapter educational activities, including defining an active and clear role for trainees and nurses</p>
<p>5. Ensure optimum delivery of educational activities through promoting the use of course accreditation and CPD approval system</p>

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