Accelerated Non-Medical Endoscopist Training Programme
Year 1 Evaluation

Report to Health Education England
23 February 2017
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Executive summary

The Office for Public Management (OPM) was commissioned by Health Education England (HEE) to conduct an evaluation of the Non-Medical Endoscopist (NME) accelerated training pilot. The NME training pilot aimed to recruit and successfully train 40 NMEs across two cohorts. The first cohort started the programme in late January 2016 and the second cohort started the programme in mid-April 2016.

As well as achieving professional certification from the Joint Advisory Group (JAG), trainees were required to take part in a blended learning programme, comprised of the following activities:

1. Clinical / practical skills training
2. Completion of the HEE NME competency portfolio
3. Academic assignment and portfolio
4. Completion of SLATE e-learning package
5. Amended Basic Skills course
6. Clinical supervision and personal development.

Evaluation activities

The evaluation aimed to produce both formative and summative findings about the impact and effectiveness of the training pilot. The evaluation activities consisted of:

- A literature review to understand training outcomes and process learnings from comparable training programmes.
- Interviews with trainees, their supervisors and their mentors from across the two cohorts.
- A survey of Cohort 1 trainees and supervisors and mentors following completion of the NME programme.
- Face-to-face interviews with a sample of patients who received an endoscopy from a NME trainee.
- Analysis of management information and training data.
- Observation at various programme activities, including the second selection day in London, two of the taught study days held in London and Liverpool and a Basic Skills Course.
- Ongoing interviews with programme Faculty members and stakeholders involved in developing and overseeing the programme.
Key findings

1. Summary of completion rates

Out of the 40 trainees across both cohorts who commenced on the NME programme, 31 have completed it within the 7-month accelerated time-frame and have been JAG certified\(^1\). Four trainees withdrew from the programme, and a further 5 are yet to finish after having been granted extensions. When they complete the programme, these individuals will be eligible for JAG certification but will not receive the accelerated certification. This equates to an overall completion rate of 78% (86% for Cohort 1 and 73% for cohort 2).

2. Progress with technical skills

Evidence from interviews with trainees, mentors, and clinical supervisors, as well as the follow-up Cohort 1 surveys indicate that the programme has proven to be effective in developing trainee’s technical skills. In the follow-up survey, Cohort 1 trainees stated that the programme had the greatest impact on their ability to operate a scope safely and effectively.

This is supported by supervisors and mentors who broadly agree that the programme was effective at equipping trainees with the technical skills for performing endoscopy procedures in a safe and timely manner.

3. Progress with non-technical skills

Overall participants thought that programme had provided a strong foundation for producing competent and independent NMEs but that the trainees will require more time to fully develop the non-technical elements, such as clinical decision making, after completing the programme.

Cohort 1 trainees interviewed as part of the follow-up fieldwork believed the programme had less of an impact on managing adverse incidents, interpreting histology results, and making decisions around patient follow-up. This echoes findings from the interim evaluation reports, where many supervisors and mentors suggested that it would take more than 6 months of training and practice to become a competent NME.

4. Effectiveness of the programme

Evidence from interviews and the Cohort 1 follow-up surveys indicates that trainees are positive about the extent to which the programme has prepared them for the role of being an independent and competent NME. Cohort 1 trainees were surveyed following completion of the programme, and the majority (85%) reported that they were working independently when carrying out endoscopies, either ‘always’ or ‘very often’.

\(^1\) The accelerated time-frame was initially 6 months, but all trainees received a 1-month extension due to delays with SLATE and the academic assignment.
Supervisors and mentors tended to indicate that further work was needed to develop full capability and confidence. Roughly half of the supervisors and mentors who completed the Cohort 1 follow-up survey said that trainees still need support from colleagues when undertaking endoscopies after completing the programme and needed more time and opportunities to develop the non-technical skills. The progress which trainees make towards achieving full capability and confidence will be explored in the ongoing evaluation taking place throughout 2017.

5. Impact on medical trainees and trusts

A small number of interviewees suggested that NME trainees faced competition with medical trainees when it came to accessing training lists. However, analysis of the follow-up survey and interview data from the evaluation as well as data from the JETS e-portfolio suggests that the programme did not have an adverse impact on medical trainees.

Following participation in the programme, evidence from the Cohort 1 follow-up surveys suggests that trainees are helping to meet endoscopy service demands at their trust, freeing up the capacity of medical colleagues, and are impacting positively on the quality of care for patients. Many newly qualified NMEs and their supervisors and mentors were confident that their utilisation by trusts, including the number of lists and list size, would increase over the coming months as they continue to settle into the new role.

6. Factors impacting on progress: level of release and trainee background

Interviews with trainees, mentors, supervisors, and programme leads suggest that level of release and trainees’ background were important factors for making progress and becoming a competent and independent NME:

- Level of release emerged as a key factor impacting on progress. Interviews suggest that those who were supernumerary made easier progress through the programme as they were able to access more lists, spend more time on the academic work, and take part in other activities such as attending clinics and observing procedures. Those with full release on average performed more procedures during the programme compared to those with partial release.

- Many felt that previous experience in an endoscopy unit was an important enabler as it meant trainees already had relationships with other staff in the unit and understood how the unit worked. However, analysis of the available performance data from Cohorts 1 and 2 does not show any significant differences between those that did or did not have this previous experience.

- Some suggested that level of seniority and management experience was more important than whether or not trainees had previous experience in endoscopy as it made it easier to develop or strengthen the non-technical skills required to be an NME, such as clinical decision making.
7. Factors impacting on progress: role of supervisors and mentors

Supervisors and mentors played a crucial role in trainees’ progress on the programme. Trainees valued the training and support from their supervisor and mentor. Interviews also highlighted the important roles that supervisors and mentors played throughout the training, which included:

- Providing practical support and feedback on skills, particularly clinical supervisors providing feedback on skills during and after procedures.
- Providing moral support and understanding the demands and challenges of completing an accelerated course.
- Being committed to the training pilot and ensuring the trainee progressed and completed the course. A common example was that mentors or clinical supervisors would often do additional lists to either provide more training lists or to make up for the loss in output from training lists.
- Acting as a ‘senior voice’ within the trust, e.g. to protect training lists or secure additional training lists.

8. Effectiveness of the recruitment and selection process

Robust recruitment and selection was seen as pivotal to the success of the programme. Stakeholders feel that the approach taken in year one of the programme has succeeded in identifying highly motivated and high quality applicants. A face-to-face selection day was deemed to be essential and the format of the selection day – involving a three-stage process – was widely supported.

The recruitment and selection approach has largely attracted applicants from nursing backgrounds. There is a view that more could be done to encourage applicants from non-nursing backgrounds to increase the skills mix and support the sustainability and further roll-out of the programme.

9. Key elements of the accelerated programme

Trainees, supervisors and mentors across the two cohorts were consistently positive about the different elements of the NME programme and felt that the combination and balance of activities, learning modes and forms of assessment were appropriate. For example:

- A regular face-to-face group element (the taught days) was seen as crucial on an accelerated programme, providing a protected space to cover topics in depth, share learning and challenges and build a sense of comradery. Delivering the study days as two-day blocks was felt to offer distinct benefits over one-off days.
- Trainees were very positive about the impact of the SLATE e-learning on improving their knowledge and skills and valued the flexible nature of the platform.
- There was felt to be significant value in completing the Basic Skills Course, especially when it was completed early on in their learning journey. The changes
made to the format of the Basic Skills Course for NME trainees were also praised (e.g. training with other NMEs only, inclusion of an experienced nurse teacher).

Views about the academic assignment and academic portfolio were more mixed. Some were very clear about the benefits of these two elements while others felt these were less critical to the role. A few suggested that the academic assignment should be optional or should take place once the other elements were completed.

10. Management and governance of the programme

Stakeholders expressed overall satisfaction with the governance arrangements for the NME programme. The level of commitment, size and composition of the Endoscopy Working Group who oversaw the programme was praised by key stakeholders. Many also praised the high quality of the programme management provided by HEE and the administrative and other support provided by the JAG.

There is also clear evidence that the team overseeing and delivering the programme have been ready to listen, reflect and modify the programme in the face of feedback and emerging challenges.

In Cohort 2 the number of trainees not able to complete the programme in the accelerated timeframe was slightly more than the Faculty expected. Stakeholders have suggested that going forward, it would be helpful to assess the systems and processes for monitoring trainees’ progress, to ensure that they can identify issues early on and support successful completion of the programme.

Sustainability and next steps

The evaluation identified several key priorities associated with the sustainability and continued success of the programme:

- Ensure that there is clarity and sign-up from mentors and supervisors about the time and resource commitments associated with participating in the programme.
- Ensure that the programme can maintain effective management and oversight arrangements, especially if future cohorts are larger and if there are multiple universities delivering the programme at the same time.
- Ensure that the programme is effectively promoted and that the recruitment approach can maintain a steady supply of suitable candidates, including those from non-nursing and non-endoscopy backgrounds.
- Ensure that the newly qualified NMEs continue to build their skills and have viable and fulfilling career paths to support workforce retention.

The evaluation will continue over 2017, tracking the progress of the trainees who participated in the first two cohorts of the programme. The evaluation will use a combination of in-depth interviews and online surveys to build a more comprehensive evidence base about the impact and effectiveness of the NME training programme.
Introduction

The Office for Public Management (OPM) has been commissioned by Health Education England (HEE) to conduct an evaluation of the Non-Medical Endoscopist (NME) accelerated training pilot.

This report presents the overall findings from the evaluation of year 1 of the NME training pilot which saw 40 trainees participate across two cohorts. The report draws on the following data sources:

- A literature review to understand training outcomes and process learning from comparable training programmes.
- Interviews with trainees and with their supervisors and mentors from across the two cohorts.
- A survey of Cohort 1 trainees and their supervisors and mentors following completion of the NME programme.
- Face-to-face interviews with a sample of patients who received an endoscopy from a NME trainee.
- Analysis of management information and training data.
- Observation at various programme activities, including the second selection day in London, two of the taught study days held in London and Liverpool and a Basic Skills Course.
- Ongoing interviews with programme Faculty members and stakeholders involved in developing and overseeing the programme.

The evaluation team worked with an Evaluation Steering Group who met on a monthly basis to oversee and support our work and quality assure the design and outputs. The steering group was comprised of key stakeholders from HEE as well as senior nurses and medical consultants involved in overseeing and supporting the programme.

A detailed methodology can be found in Appendix 2.

A list of the members of the Faculty and other key groups involved in delivering and overseeing the programme can be found in Appendix 5.

Background

The Non-Medical Endoscopist (NME) training programme is an accelerated clinically-based learning programme. The programme was intended to be completed within a six-month period, resulting in summative endoscopy sign-off for either the upper GI endoscopy or flexible sigmoidoscopy modalities. When developing the programme, recruitment of the
following registrants was anticipated: registered nurses; diagnostic or therapeutic radiographers; and Operating Department Practitioners (ODPs).

A target was agreed of 40 NMEs being selected to take part in the pilot over 2016. A total of 40 NMEs were recruited across two cohorts, and started the training programme in either late January or in mid-April 2016. There was an open recruitment round with applications being invited from Trusts, followed by a shortlisting and selection process involving a face-to-face three-part assessment to identify suitable cohorts.

The training programme required applicants to achieve certification from the Joint Advisory Group\(^2\) (JAG) and developed a form of blended learning which combined the following six elements:

1. Clinical / practical skills training
2. Completion of the HEE NME competency portfolio
3. Academic assignment and portfolio
4. Completion of SLATE e-learning package
5. Amended Basic Skills course
6. Clinical supervision and personal development

The NME training programme is intended to ensure that there are more trained endoscopists who can help to meet the growing demand within endoscopy services in England, build workforce capacity, and address waiting times for diagnostic services.

There are several contextual factors underpinning the rationale for the programme, including national bowel screening programmes and cancer awareness campaigns. The Department of Health’s mandate to HEE requires an increase in endoscopists, to ensure national screening programmes have sufficient resources, especially as cancer screening is increasing and the population is ageing so demand for endoscopy is projected to grow\(^3\).

### Overview of the evaluation

The OPM evaluation combines formative and summative elements and is designed to explore the following:

- The arrangements for developing the programme, including stakeholder liaison and communication.
- The trainee selection process, including application processes and selection criteria.


\(^3\) A recently published paper by the Department of Health reports a 5.3% compound growth. [https://www.gov.uk/government/publications/gastrointestinal-endoscopy-workforce-supply-review](https://www.gov.uk/government/publications/gastrointestinal-endoscopy-workforce-supply-review)
The development, content and delivery of the training programme and training methods, including academic, online and clinical training.

How the pilot training programme compares against international comparators.

The development of trainees as they progress through the training, including: any issues associated with the content and pace of learning; the learning experience of trainees and comparison across different clinical backgrounds and settings; any attrition and reasons for this.

The outcomes of the programme, including the employment, skills and competence of trainees and their fitness and suitability to undertake specific endoscopy procedures.

Feedback from patients on the standard of care provided by the trainee endoscopists.

The longer-term potential for alternative NME training routes, including direct graduate entry and/or entry at different career levels.

About this report

This report is intended to be read by stakeholders involved in developing and overseeing the accelerated NME training programme as well as a wider audience who have an interest in healthcare improvement and the introduction and training of new specialist roles in the healthcare system.

It has five main sections:

- **About the programme**: covering the aims of the programme, the context and drivers and providing a summary of an evidence base about the effectiveness of comparable training programmes, drawing on the available literature.

- **Is the programme achieving its goals?** Covering completion rates, motivations for joining the programme, trainee progress and performance, factors affecting progress, the impact of the programme on medical trainees, what happened post completion inc. utilisation and further training.

- **Effectiveness of the design and delivery**: Covering managing and oversight of the programme, recruitment and selection, and reflections on the different components of the programme.

- **Further improvements and reflections on sustainability**: Reflections and priorities when it comes to the sustainability and further roll-out of the programme.

- **Conclusions and next steps**: A summary of the key conclusions and next steps.

It also contains the following appendices:

1. The programme logic model
2. Evaluation methodology
3. Pass / completion rates of programme elements

4. Summary of the evaluation recommendations and actions taken by HEE

This report builds on two interim reports that were completed in 2016 and which focused on the delivery of the programme across the first and second cohorts.

_Caveats to the findings_

When considering the findings presented in this report, it is important to note the following:

- This report assumes a certain level of knowledge and understanding about the role of endoscopists and their current training and development arrangements.

- There has been, and continues to be, a high level of pressure and change within endoscopy departments, and different departments and trusts will all face their own specific issues and challenges. The trainees are receiving varying levels of support and guidance within their trusts, and will all have differing personal and professional backgrounds and family circumstances. This complex backdrop highlights the importance of understanding context when interpreting the findings, and wherever possible we have sought to tease out the extent to which contextual factors are impacting on progress and outcomes.

- Some of the outcomes for trainees, departments and trusts, and indeed for patients are likely to take more time to be fully realised, and will fall outside of the parameters of the Year 1 evaluation report.
1. About the programme

1.1 What was the NME trying to do?

The NME pilot programme was described by several programme stakeholders as a “proof of concept” exercise which aimed to assess whether an accelerated, blended learning programme, aimed at non-medics, would be able to produce competent and independent endoscopists in a way that was sustainable.

Drawing on programme documentation and interviews with programme stakeholders, the programme identified the following intermediate and long-term outcomes and goals:

Table 1 NME pilot programme outcomes

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<th>Long term outcomes</th>
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<tr>
<td>Trainees achieve employment and career progression.</td>
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<td>Trainees are able to work safely and independently and become confident in clinical decision making.</td>
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<td>The NME role frees up the capacity of medical endoscopists.</td>
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<td>Patients benefit from increase in capacity of diagnostic services and improvements in quality of care.</td>
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<tr>
<td>Host Trusts benefit from the cost efficiencies of an expanded non-medical workforce.</td>
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<td>The NME programme contributes to meeting bowel scope screening programme targets and the NICE two week waiting times target.</td>
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<td>The healthcare system benefits from a greater standardisation of endoscopy training in England.</td>
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<td>The accelerated NME training programme can be successfully rolled out at a national level.</td>
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<th>Intermediate outcomes</th>
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<tr>
<td>Patients benefit from a reduction in waiting times as service capacity is increased.</td>
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<tr>
<td>Trainees achieve the desired mix of practical and technical competencies and develop confidence in their practice.</td>
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<tr>
<td>NME model of blended accelerated learning achieves ‘proof of concept’ with the initial cohorts of trainees successfully completing the programme.</td>
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The programme also sought to ensure that medical trainees based in participating trusts were not negatively impacted in terms of access to endoscopy training lists and this was a key consideration running through the design, delivery and management of the NME pilot.

1.2 What was the context and drivers?

There was a shared understanding amongst programme stakeholders about the rationale for the pilot, with all identifying the growing demand for endoscopy services and the subsequent need to increase the capacity of the current workforce as the primary drivers for the pilot. Increasing the capacity of the current endoscopy workforce was felt to be crucial in achieving the targets set in the Bowel Scope Screening Programme and meeting the National Institute for Health and Care Excellence’s (NICE) two-week waiting list targets.

“Looking at numbers of endoscopies required to deliver the Lower GI endoscopies that are being requested, there is a need to train more endoscopists.” Stakeholder

In addition, several stakeholders noted that previously, outside of the JAG certification requirements, there was no standardised training approach for NMEs to go through and that training routes had largely been determined by individuals and trusts. This had resulted in a high level of variation in the training and outcomes, and improving the consistency and standardisation of the training was felt to be an important rationale for the pilot.

Stakeholders identified a number of wider potential benefits. Some focused on the cost efficiency and flexibility afforded by NMEs (as opposed to medical endoscopists), while others focused on the particular skillsets and competencies that NMEs (particularly those with a background in nursing) could bring to the role and the opportunities this would create for providing a more rounded approach to care.

“The NME programme is exploring the possibility of developing more endoscopists as they are cheaper than employing more consultants, but also because there is a parallel belief that some endoscopy can be effectively delivered by people who are not medics.” Stakeholder

“We know there is growing demand for NMEs, competent nurses and others, who can deliver a more rounded approach to psycho-social care, psychologically and socially they can often prepare patients better than doctors. We want people who can provide the whole package for patients.” Stakeholder
1.3 What did the literature review tell us?

As part of the evaluation, OPM undertook a literature review to provide a consolidated evidence base on the training outcomes and process learning that can be used to inform the evaluation of the pilot. A summary of the findings is provided below.

Clinical outcomes

One of the aims of the review was to consolidate evidence on outcomes of NMEs compared to medical endoscopists. Forty-five studies were identified that compared the outcomes of NMEs with medical endoscopists, the majority of which were primary research studies based on a range of study designs. For the purposes of this review, only systematic reviews were included to provide a robust overview of the evidence base on NME outcomes. Five systematic reviews were reviewed.

- All five of the systematic reviews concluded that NMEs can accurately and safely perform endoscopic procedures. Three of the systematic reviews were able to conclude that NME-led endoscopy was comparable to physician-led endoscopy with regards to indicators of quality and safety. A meta-analysis found lower GI endoscopy procedures in particular to have similar outcomes when performed by NMEs.

- The evidence for NME performance being comparable to physician endoscopists is most consistent across the indicators of procedure times, polyp/adenoma detection rates and complication rates. Similar polyp/adenoma rates were found between NMEs and physicians in the majority of the studies included in the systematic reviews; most of these studies appear to be related to flexible sigmoidoscopy. Total procedural times were found to be similar for NMEs and physicians.

- While direct comparisons are difficult to make, there is some evidence to suggest that when it comes to cognitive (non-technical) competencies, in relation to the delivery of endoscopic services, nurses appear to perform less well than medical endoscopists.

- Patient satisfaction outcomes were rarely defined in the systematic reviews, but, where they were, patient satisfaction associated with nurse-led endoscopy was found in all cases to be comparable or better than physician-led endoscopy. There is a lack of evidence explaining higher patient satisfaction with NMEs, but it is suggested that it could be attributed to differences in training, as nurse training has a greater emphasis on learning skills such as patient contact and communication during their clinical placements. There is less evidence of outcomes with regards to patient anxiety, pain or discomfort.
International NME training programmes

Another aim of the literature review was to identify international NME training programmes and capture process learning around programme design and training outcomes. In total, twelve international NME programmes were identified and were based in Australia (n=3), Canada (n=1), Hong Kong (n=1), Ireland (n=1), Netherlands (n=1), New Zealand (n=1) and USA (n=4). These programmes varied by duration (from 1 month to 24+ months), by the number of required procedures (from 25 to 200+), by the primary modality (colonoscopy or flexible sigmoidoscopy), and by components of the training programme (theoretical knowledge and cognitive skills, technical and procedural skills, leadership and management skills etc.).

Although none of the international NME training programmes reviewed described themselves as accelerated programmes, the review did identify several factors that could potentially increase the likelihood of successfully training NMEs in an accelerated programme:

- **Backgrounds of trainees** – trainees with prior experience of gastroenterology and endoscopy, e.g. endoscopy nurses and those who have worked in endoscopy units, appeared to be more likely to complete training requirements faster.

- **Relationship and trust between trainee and supervisor** – the degree to which a trainee was embedded in their training organisation and/or received support appeared to influence how fast they completed the training programmes.

- **Access to dedicated training lists** – trainees who had access to dedicated training lists appeared to be able to more quickly complete the required number of procedures. The variability in the time taken for trainees to complete the training programme reported in the evaluations of the RNFS programme in Canada and HWA programme in Australia was in both cases primarily attributed to variation in access to training lists between sites, in addition to the availability of supervisor/trainer time.

- **Number of procedures required** – the number of procedures programmes required trainees to perform before they could be considered ready for assessment depended on the modality of endoscopy procedures that NMEs were being trained in. Programmes focusing on flexible sigmoidoscopy, particularly those in the US, typically required fewer procedures (25-100).

Other non-endoscopy accelerated training programmes

Lastly, the review also aimed to identify further process learning from other accelerated training programmes not focussing on endoscopies. The main programmes identified were accelerated nursing programmes in the USA, as well as a training programme for Perioperative Specialist Practitioners (PSPs) in the UK. Despite these programmes not focussing on endoscopy, they do bear resemblance with the NME accelerated training pilot, and a number of factors were identified that could potentially increase the likelihood of successful accelerated training. These factors were:
• **Education and assessment techniques** – as was highlighted in studies focusing on accelerated nursing training programmes in the USA, accelerated nursing trainees, as well as NME trainees, are ‘adult learners’ and it has been suggested that accelerated nursing students thrive on a more virtual and creative educational approach involving web-based learning, simulations, etc. An online approach allows for more flexibility. Likewise, it has been reported that multiple-choice assessment is more common and appropriate than lengthy written assignments and essays.

• **Transition to professional life** – in the case of accelerated nursing, issues were raised regarding transition from student to professional nurse. Stronger relationships with faculties and continued support through workshops, seminars, and peer mentoring could facilitate the transition to the nursing role and identity. This must be considered for the long-term success of the NME accelerated training programme.

• **Support from trust** – the PSP training programme evaluation highlighted the importance of local support from participants’ trust, through a ‘champion’ and ‘clinical mentor’, and the need for clearly defined mentor agreements and commitment from mentors. The degree to which a trainee is embedded in their training organisation and/or receives support appears to influence how fast they can complete training programmes. Trainees who are embedded in their organisations are more likely to have productive relationships with medical colleagues and supervisors, and to be trusted by the organisation, which appears to help expedite the practical training process. This affirms the need for ‘clinical supervisor’ and ‘mentor’ roles in the NME accelerated training pilot.

• **Programme readiness** – additional resources required to implement accelerated nursing programmes have not always been put in place, leading to key concerns of faculty fatigue, heavy faculty workloads, and poor staffing. The training and support for programme leads and educators must also be considered when delivering accelerated programmes.

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2. Is the NME programme achieving its goals?

This section summarises the overall performance and progress of trainees and whether the programme has achieved its aims. It also discusses the key factors affecting progress and reflects on development and utilisation of trainees after completing the programme.

The sub sections in this chapter are as follows:

- Trainee completion rates
- Motivations for joining the programme
- Trainee progress and performance
- Factors affecting progress
- Post completion
- Patient feedback
- Impact on medical trainees and trusts
- NME case studies

2.1 Trainee completion rates

To date, 31 out of the 40 trainees who commenced the NME programme have completed it within the 7-month accelerated time-frame and have been JAG certified. Four trainees withdrew from the programme, and 5 are yet to finish after having been granted extensions. When they complete the programme, these individuals will be eligible for JAG certification but will not receive the accelerated certification.

Figure 1 below shows the number of trainees for each cohort who have completed, withdrawn, or are yet to complete the programme. Tables showing completion rates can be found in Appendix 3.

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5 The accelerated time-frame was initially 6 months but all trainees received a 1-month extension due to delays with SLATE and the academic assignment
Reasons for withdrawing

As shown above, four trainees withdrew from the programme. Reasons for dropping out are as follows:

- One dropped out because of unforeseen capacity issues at their trust which meant the trainee had to take up some additional workload and did not receive enough release time to participate in the NME programme. The trust was also unable to provide enough allocated training lists for the trainee to meet the minimum number of procedures in the accelerated time-frame.

6 2 trainees were appointed and attended the induction day but withdrew shortly after, before properly taking part in the key training components of the programme

5 1 trainee withdrew after the 6 months but had not completed all elements
• One dropped out 6 months into the programme as they had limited access to training lists and struggled with the workload.

• Two dropped out for personal reasons, e.g. health or family issues.

Reasons for not completing within the accelerated timeframe

Additionally, as of 1/12/2016, 5 trainees (1 from Cohort 1 and 4 from Cohort 2) have not completed the programme. The induction day for Cohort 1 was 20/01/2016, meaning that as of 1/12/2016, the remaining Cohort 1 trainee has been in the programme for over 10 months. The Cohort 2 induction day was on 19/03/2016 meaning that the remaining Cohort 2 trainees have been in the programme for over 8 months. The main reasons for not yet completing the programme are outlined below.

• One trainee had limited access to training lists and took a longer time to achieve the minimum 200 procedures. They also submitted the portfolio late.

• One trainee fell behind with the 200 procedures due to illness.

• One trainee struggled with the workload due to only having partial release and has not submitted the portfolio and academic assignment. They also struggled to access enough training lists and have yet to complete the 200 procedures.

• One trainee completed all elements of the programme, including the 200 procedures, however, more work was required to achieve sign-off from their supervisor.

• One trainee struggled with the workload and has not submitted the portfolio and academic assignment.

Composition of trainees across Cohorts 1 and 2

The table below describes the composition of trainees who were recruited to Cohorts 1 and 2. It is worth noting that two were from non-nursing backgrounds and that 6 were not based in an endoscopy department at the time of applying.
Table 2: Composition of trainees across Cohorts 1 and 2

Composition of Cohort 1
Cohort one was made up of 14 trainees, one of whom withdrew from the programme during the first few months.

- Twelve trainees came from a nursing background. Of these, roles included several staff nurses in endoscopy departments; several senior nurses within endoscopy departments; three Specialist Screening Practitioners based in Bowel Cancer Screening Centres; an inflammatory bowel disease (IBD) specialist nurse; and a nurse practitioner on the enhanced recovery programme.
- One trainee was an Operating Department Practitioner and another was a Lead Surgical Care Practitioner

Seven trained on the Upper GI modality and seven trained on the Lower GI modality.

Composition of Cohort 2
Cohort 2 was made up of 26 trainees, 3 of whom withdrew from the programme. All trainees came from a nursing background, 22 of which were already based in an Endoscopy department. Roles when recruited included:

- 4 trainee nurse endoscopists
- 4 staff nurses / 3 senior staff nurses / 1 lead nurse in Endoscopy
- 4 specialist screening practitioners / 1 lead specialist practitioner in Bowel Cancer Screening
- 1 junior sister / 3 sisters in Endoscopy
- 1 nurse consultant in Endoscopy
- 1 endoscopy specialist nurse / 1 colorectal specialist nurse / 1 inflammatory bowel disease specialist nurse
- 1 senior staff nurse in Oncology and Haematology Day Unit

Nine trained on the Upper GI modality and seventeen trained on the Lower GI modality.

2.2 Motivations for joining the programme

Trainee and trust motivations for participating in the NME training pilot were very much in line with the aims and objectives underpinning the programme.

Trainee motivations

Trainees across the two cohorts consistently saw the NME programme as providing a welcome professional and career development opportunity. Many were excited by the
prospect of stepping-up to an independent and advanced practitioner role, particularly those who had been working previously as nurses within endoscopy departments.

“This came at a perfect time. I was ready for a new challenge and new experiences. I felt like I had extended my role as much as I could as a sister and I also wanted to get more involved in MDT side networking with other members of the trust.” [Cohort 2 trainee]

Several of the more senior applicants said that the NME role was a chance to progress in a patient focussed career path, rather than moving into a management role.

Trainees were attracted to the fact that the NME programme offered a more thorough and well-structured learning opportunity in comparison to what was offered in-house, where the quality of training and support was likely to be variable and the development of knowledge and skills more “haphazard”. Around a third of trainees said that they were attracted to the accelerated nature of the programme, which would allow them to advance their skills and their careers more rapidly than if they were training completely in-house, which could take between 12 and 18 months. Some also indicated that the momentum and pace of an accelerated programme was suited to them.

“I really liked the challenge and pace of a 6-month programme because I am someone who thrives when I am under a bit of pressure.” [Cohort 2 trainee]

Trust motivations

The most common driver for trusts across both cohorts was the need to expand endoscopy capacity in the face of the growing service demand. Many trusts linked the need for increased capacity with the roll-out of the Bowel Scope Screening Programme which would require increased capacity to undertake flexible sigmoidoscopies. In several cases, new endoscopists were needed because their trust was in the process of expanding their endoscopy department into new rooms or at a new site or because the endoscopy department was short staffed.

Many trusts were attracted to the NME pilot because it was an accelerated course and therefore they would be able to increase their service capacity and reap the benefits of the training more quickly compared with alternative training pathways. Trusts also recognised that the pilot was offering a high quality and well-rounded package of training at no additional cost to them, and saw this as a further benefit for their service.

“I was employed to train as a nurse endoscopist and this offered the trust a gold standard training opportunity.” [Cohort 1 trainee]

Several supervisors and trainees said that training up an NME made good financial sense for the trust since they can deliver better value for money for certain types of procedures
compared with medics and because the NME programme was focused on rapidly developing endoscopists with a more rounded set of skills and knowledge than their in-house equivalents. In many cases, it was anticipated that the new NMEs in their department would have the flexibility in their role to plug gaps in the service, when consultants and other medics were away or busy. However, it is again worth noting that these successful trusts also understood the need to invest in their trainees to achieve the longer-term savings and had planned for this.

2.3 Trainee progress and performance

As part of the NME programme trainees were required to perform a minimum of 200 clinical procedures at their trust, under the supervision of an experienced endoscopist. This training was in either upper GI endoscopy or flexi sigmoidoscopy.

In order to reach the required number of procedures, trusts were expected to commit two training lists per week to trainees. These training lists are reduced in size from normal service lists, i.e. fewer patients are booked into the list, to account for the additional time required for trainees. The actual size of training lists may vary, but the JAG recommends that training lists should be 60% of the size of a service list, i.e. with a maximum of four colonoscopies or eight upper GI endoscopies.\(^8\)

Data provided by JAG shows that 29 out of 37\(^9\) (70%) trainees completed 200 procedures minimum within the accelerated timeframe. Across both cohorts, trainees completed on average 228 procedures during this timeframe: 246 among Cohort 1 and 218 among Cohort 2.

Among both cohorts, those doing the upper GI endoscopy modality progressed quicker and completed on average 261 procedures during the accelerated time-frame compared with those doing flexible sigmoidoscopy who on average only completed 205 procedures. Throughout the programme, those training in the upper GI endoscopy on average had a consistently higher rate of procedure completion than those focusing on flexible sigmoidoscopy. Possible reasons for this include the fact that in some trusts there were fewer dedicated flexible sigmoidoscopy lists compared to upper GI endoscopies, and because upper GI lists can accommodate more points, compared with flexible sigmoidoscopy.

Overall, there were mixed views about whether the accelerated NME programme prepared trainees for the role of being an independent and competent Non-Medical Endoscopist. Findings from the Cohort 1 follow-up surveys, as shown below in Figure 2, show that trainees themselves were very positive about the extent to which the programme has

\(^8\) Recommendation taken from: https://www.jets.nhs.uk/FAQ.aspx

\(^9\) Includes the one trainee who withdrew from the programme after the 6 months
prepared them for the role: with 11 out of 13 saying that the programme prepared them ‘to a great extent’. When it came to supervisors and mentors, 5 out of 14 thought the programme prepared trainees ‘to a great extent’, while 8 respondents stated that the programme prepared trainees ‘somewhat’, and 1 said that the programme prepared trainees ‘very little’.

Figure 2: Overall, to what extent did the accelerated NME programme prepare you for the role of being an independent and competent Non-Medical Endoscopist? (Cohort 1 follow-up surveys)

![Bar chart](image)

In the follow-up interviews, supervisors and mentors broadly agreed that the programme was effective at equipping trainees with the technical skills for performing endoscopy procedures in a safe and timely manner. The main areas where they felt that further training and experience was needed was the non-technical elements such as clinical decision making. This echoes findings from the evaluation interim reports where many supervisors and mentors were not confident about the ability of trainees to develop these skills in an accelerated 6-month timeframe, noting that it takes more than 6 months of experience to become a competent NME. As such, many supervisors and mentors did not expect trainees to achieve full independence and competence by the end of the programme.

“In learning to scope is only half of the task and can be achieved with the programme but having the confidence to interpret findings and deciding on the patients’ treatment plan is another matter. This is something that you cannot accelerate.” [Cohort 2 mentor]

As already noted, trainees themselves were more positive about the extent to which the programme prepared them for the role of being an independent and competent NME. Since completing the programme, the large majority (85%) of Cohort 1 trainees reported that they were working independently when carrying out endoscopies, either ‘always’ or ‘very often’. This was confirmed when they were asked to reflect on their most recent endoscopy procedure. Almost all trainees thought they had successfully completed the endoscopy
procedure and did not find it hard to accomplish what they were expected to do. Furthermore, very few indicated that they found it either mentally demanding, technically demanding, or that they felt emotionally drained or frustrated after the procedure.

**Figure 3:** Overall, to what extent do you feel you are working independently when carrying out endoscopies? (Cohort 1 follow-up survey – trainees, n=13)

![Pie chart showing the extent of independence felt by trainees.](chart.png)

When reflecting on the impact of the programme on their skills and practice, Cohort 1 trainees found the programme particularly impactful on their ability to operate a scope safely and effectively, which supports views from supervisors and mentors that the programme was most effective at equipping trainees with the technical scoping skills required to become a NME. Trainees also reported that the programme had adequately prepared them to report on endoscopic procedures, administer sedation and analgesia safely to individuals during procedures, and understand relevant anatomy and physiology.

Areas where trainees felt that further development is needed include managing adverse incidents, interpreting histology results, and making decisions around patient follow-up. Again, this supports the views from supervisors and mentors that trainees would not fully develop these non-technical skills within the accelerated time-frame of the programme.

Additionally, almost a third of trainees stated that they need to develop their practice in applying therapy during endoscopies, for example, as many still require supervision with polypectomy. This may be because many trainees focussed on flexible sigmoidoscopy which often does not require therapy, but some participants did suggest that this could be covered more in the programme, for example by including a course on polypectomy.
Figure 4: To what extent do you agree or disagree with the following statements about the impact of participating in the NME programme on your practice as an endoscopist? (Cohort 1 follow-up survey – trainees, n=13)

<table>
<thead>
<tr>
<th>Statement</th>
<th>0</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operate a scope safely and effectively</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand relevant anatomy and physiology</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide reports on endoscopy procedures</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administer sedation and analgesia to individuals during endoscopic safely</td>
<td>6</td>
<td></td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify abnormalities during endoscopies</td>
<td>6</td>
<td></td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide clinical interpretation from investigations</td>
<td>4</td>
<td>7</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicate and relate to individuals during procedures</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have authority to act within the team</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquire informed consent from patients</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicate significant or difficult news to individuals</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply therapy during endoscopies</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpret histology results</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make decisions around patient follow-up</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage adverse incidents</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 5 - Strongly agree  
- 4  
- 3  
- 2  
- 1 - Strongly disagree

### 2.4 Factors affecting progress

Throughout the evaluation, trainees, mentors, supervisors, and programme leads highlighted a numbers of factors which affected and facilitated progress throughout the programme. The most important factors, as shown below, were: the level of release to participate in the programme, access to training lists, the professional background and previous experience of trainees, and support from supervisors and mentors. It is likely that the relative significance of the four factors outlined below will vary from trainee to trainee. For example, mentor/ supervisor support for trainees with more seniority and from particular backgrounds might be less critical to their progress.
Figure 5: The key factors affecting trainee progress

**Level of release**

Programme leads and others felt that level of release was one of the most important factors affecting the progress of trainees. As was expected for an accelerated training programme, trainees found that the programme was very demanding and intensive, and the amount of time that trainees were given to participate in the programme varied considerably in both cohorts. Most trainees received partial release from their trust in order to participate in the programme, meaning they had to work part-time in their previous role whilst participating in the NME programme. Interviews with trainees, mentors, supervisors, and programme leads highlighted that many trainees struggled with partial release and would have benefited from more release and being able to focus more on the training programme.

“I think when you recruit you need to make sure that people are going to be able to commit to the programme, that they will be released from whatever their job is.” [Cohort 1 supervisor]

“Because I have my 22.5 hours commitment to bowel cancer screening it has been really difficult...what I'm finding is 15 hours for training isn't enough. I don't know if full time is needed but definitely more than 15 hours – maybe 25.” [Cohort 2 trainee]

Roughly a third of trainees received full release from their trust and were full-time NME trainees. Overall, those with full release benefited primarily from having the time and flexibility to take on additional lists and ad hoc procedures, as those with full release performed on average 251 procedures during the programme compared to an average of
216 procedures among those with partial release. Full release also allowed trainees to spend more time during working hours on the portfolio, SLATE e-learning and academic assignment, and use their spare time in other ways to increase their learning and understanding of the NME role, such as observing procedures or attending multi-disciplinary team (MDT) meetings and clinics.

“It’s enabled me to be on the department to get my procedure numbers in…I can get procedures here today and there tomorrow.”
[Cohort 1 trainee]

“I’m doing stuff in my own time but I’m trying to limit that; if it wasn’t full time I’d be really struggling. Being full-time is key. I think it should be essential – it’s a lot of pressure and a lot to take on.”
[Cohort 2 trainee]

Professional background

Throughout the evaluation there were differing views from trainees, supervisors, mentors and stakeholders about what professional background facilitated progress and successful completion of the NME programme. As discussed in previous interim reports, some believed that having a background in endoscopy (i.e. having worked in an endoscopy unit as, for example, an endoscopy nurse) was very important due to the background knowledge and familiarity with various aspects of endoscopy, for example identifying pathologies. In addition, the exposure and experience of working in an endoscopy unit, for example having established relationships with staff and understanding the dynamics of how the unit works, was thought to facilitate progress. These participants believed that trainees without a background in endoscopy would find the programme more challenging as the level of preparation and learning curve would be far steeper, particularly at the start of the programme, whereas those with a background in endoscopy would be able to build to existing knowledge as opposed to starting from scratch.

“It helps me having worked in endoscopy before. I’ve seen procedures before, so the decisions regarding what to do as an endoscopist helps as I’ve seen it in prior cases. I’ve also got an awareness of the policies in the unit, having that background knowledge has massively helped me. It’s something less to learn.”
[Cohort 2 trainee]

“They [trainees without endoscopy experience] wouldn’t bring any background knowledge to it and trainers will have to teach absolutely everything and all they will know is what they are taught because they won’t bring any background info.” [Cohort 2 clinical supervisor]
However, some stakeholders including mentors and supervisors did not think that having a background in endoscopy was essential for the programme, noting many transferable skills that could be applied from other hospital roles and departments, though they acknowledged that more work and commitment may be need at least initially to learn the basic principles and concepts.

“They may need more support in the process if they don’t have an endoscopy background, but I don’t think [that background is] critical.” [Cohort 1 clinical supervisor]

Likewise, some participants did not think that being a nursing professional was essential, and thought that those without a nursing background should be encouraged to apply for the programme. Instead, what many participants believed was most important was the level of seniority of trainees prior to commencing the programme, noting that senior nurses or non-nursing professionals could become more confident with the non-technical elements required to become an NME, such as clinical decision making, authority to act, and managing teams, as well as being more assertive when seeking training lists. Some programme leads also stated that the more mature and experienced individuals contributed more on the taught days and appeared to be more resilient in the face of challenges and heavy workloads.

The completion data shows that all 6 participants from a non-endoscopy background completed the course. There was no major difference between the number of procedures performed during the programme: those from a non-endoscopy background performed on average 234 procedures compared to an average of 231 procedures among those from an endoscopy background.

Access to lists

Access to training lists was the most commonly cited factor from the interviews that affected trainee progress with the hands-on scoping. Almost all trainees were provided with two dedicated training lists per week and, providing there were no disruptions or cancellations, some said that this sufficed and had enabled them to reach the required number of procedures and make progress with the hands-on training. However, most trainees encountered issues when it came to accessing training lists at some point in the programme.

There were a number of ‘generic’ training challenges that were reported in the interviews, including training lists being cancelled due to public holidays, annual leave, sick leave, the trainer being unavailable (e.g. on call or emergencies), or the trainee being unavailable when at the taught study days or Basic Skills Course. There were also cases where training lists were reduced in size due to patients not attending or inappropriate patients (e.g. wrong modality for the trainee or cases too complex for the trainee) being put on training lists.

Some trainees found it particularly challenging accessing lists at the start of the programme, suggesting this was due to poor preparation on behalf of the trust or a lack of time to fully prepare for the NME pilot.
Support from supervisors and mentors

Nearly all trainees across both cohorts provided very positive feedback on the role of their clinical supervisor and/or mentor. These roles were seen as crucial and facilitated their progress through the programme, primarily through:

- Providing moral support and understanding the demands and challenges of completing an accelerated course
- Providing practical support and feedback on skills, particularly clinical supervisors providing feedback on skills during and after procedures
- Being committed to the training pilot and ensuring the trainee progressed and completed the course. A common example was that mentors or clinical supervisors would often do additional lists to either provide more training lists or to make up for the loss in output from training lists
- Acting as a ‘senior voice’ within the trust, e.g. to protect training lists or secure additional training lists

Most trainees and supervisors and mentors met formally with one another, e.g. every week or month, whereas for a few others the support was more ad hoc and distant. The most common criticism about supervisors and mentors was the challenge of working around their busy schedules, and in some cases trainees reported difficulties accessing a regular meeting slots with them during the training programme. Programme leads also noted that a small minority of the supervisors had treated the trainees more like they were medics and had not sufficiently tailored the training and support to their learning needs.

2.5 Post-completion

Roles, responsibilities and utilisation

Since completing the programme, the majority of Cohort 1 trainees stated that their role and responsibilities have changed ‘to a great extent’ since participating in the NME programme as they begin leading on endoscopies.

The main aim of the NME Pilot Training Programme was to help improve the NHS capacity for delivering endoscopy procedures, ensuring the availability of sufficient endoscopists. Overall, participants in the evaluation believe the programme is meeting this goal or will do once trainees have properly transitioned into their new roles.

As shown in Figure 6, trainees, supervisors and mentors from Cohort 1 on the whole believe that the NMEs are being utilised effectively and are helping to meet endoscopy service demands at trusts and free up the capacity of medical colleagues, though it must be noted that around half of respondents stated that trainees still need support from colleagues when undertaking endoscopies soon after completing the programme. In addition to increasing
capacity, almost all respondents think that the role is having a positive impact on the quality of care for patients.

**Figure 6: Impact of NMEs (Cohort 1 follow-up surveys – combined trainees and supervisors and mentors, n=27)**

<table>
<thead>
<tr>
<th>Impact of NMEs</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>The role is having a positive impact on the quality of care for patients.</td>
<td>5</td>
<td>21</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>The skills and competencies they acquired on the NME programme are being well utilised by the trust</td>
<td>5</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>They are helping to meet endoscopy service demands at the trust.</td>
<td>6</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>The role is helping to free up the capacity of medical colleagues.</td>
<td>4</td>
<td>15</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Senior colleagues at the trust have clear plans about how the NME will be effectively utilised</td>
<td>3</td>
<td>15</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>They regularly need support from colleagues when undertaking endoscopies.</td>
<td>1</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Restructuring and change in the trust has made it difficult for them to take on/develop into a new role</td>
<td>1</td>
<td>7</td>
<td>15</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

While the follow-up survey data points to the positive impact on trusts, as shown above, the newly qualified NMEs are not yet performing the same number of procedures as other endoscopists. As shown below, less than a third of trainees are carrying out 3 or more lists each week. Most trainees are only carrying out 1 or 2 lists a week and, when they do, they continue to carry out reduced lists, i.e. 8 or less points per list.
For a small number of Cohort 1 trainees, their roles and responsibilities have not changed significantly. However, these trainees expect the number of lists and list size to increase over the coming months as they continue to settle into the new role\(^\text{10}\). Some also indicated that trusts are not yet able to accommodate the newly-qualified NMEs or said that they face capacity issues in other service areas which are preventing full utilisation.

“I expect to start scoping regularly and build up my confidence. Additionally, there are plans to develop nurse-led dyspepsia clinic, but for the moment there are issues with capacity in the outpatient department.” [Cohort 1 trainee]

“My trainee, since he qualified, doesn’t have his own list up to now. Our endoscopy work template is drafted to full capacity and unfortunately he hasn’t been put on any allocation.” [Cohort 1 mentor]

Additionally, upon completion of the programme, many are only working as an NME part-time as they are still carrying out some of their previous roles, meaning they were never intended to perform a large number of endoscopies each week. Newly-qualified NMEs are also undertaking a variety of other activities, as shown in the figure below.

\(^{10}\) This will be followed up in the ongoing evaluation.
Further training and job plans

As they did not expect trainees to achieve full independence by the end of the NME programme, supervisors and mentors thought it was important to continue with in-house support after trainees completed the programme. Findings from the follow-up survey of trainees indicates that supervisors and mentors are committed to providing this ongoing support.

Figure 9: Ongoing support/ supervision of NMEs since participating in the NME training programme (Cohort 1 follow-up survey – trainees, n=13)
While the majority of trainees stated that they were happy with the level of support they were receiving from colleagues, a small number said they would like additional support or supervision. It was more common for trainees to say they that their priority was doing procedures regularly so that their skills and confidence could be strengthened further.

*I feel I would benefit from doing regular lists with consultant/ senior colleague support available in the department.* [Cohort 1 trainee]

When it comes to further training, some trainees from the Cohort 1 follow-up survey stated that they would be undertaking structured in-house training, for example progressing from flexible sigmoidoscopy to full colonoscopy, whereas others stated that they would stick to the modality in which they trained during the NME programme.

### 2.6 Patient feedback

As reported earlier, nearly all trainees, supervisors and mentors who completed the Cohort 1 follow-up surveys agreed that the role is having a positive impact on the quality of care for patients.

As part of the evaluation eight patients were interviewed who received an endoscopy procedure from a Cohort 1 or 2 trainees. The key findings from the interviews are provided in the box below.

**Overall thoughts on the experience**

Patients were consistently positive about the overall experience of having the endoscopy procedure. Several said it had been a “quick” “easy” or “smooth” experience or remarked that everything had “gone well” or that it was “well organised”.

“My procedure was very easy and it went very quickly, it all seemed perfect.” [Patient]

Three patients had previously had an endoscopy procedure and in all cases felt that the standard of care they had received from the trainee NME was either the same or better.

**Impressions of the NME service**

Patients consistently felt that the service provided by the trainee NME and the wider team was safe and stated that they had been well looked after and helped to feel comfortable throughout the process.

“Felt completely safe and comfortable…it was as good as it can be for something like this.” [Patient]
All patients interviewed emphasised that the trainee had seemed confident and were not “nervous”, “flushed” or “stressed” when carrying out the procedure. A few also noted that the trainee had seemed to handle the scope confidently.

“It was very professional she took a soft approach... she didn’t seem stressed she seemed confident” [Patient]

When thinking about the skills of the trainee endoscopist a few noted that they would have never known that the person leading the procedure was a trainee and had no concerns about their competency during the procedure.

“I wouldn’t have known she was a trainee. I felt that she was at the same level as the non-trainee I had when I had a colonoscopy.”

“I feel that she was no different to a doctor.” [Patient]

Some also talked about the support provided by the wider team which helped to make them feel safe and looked after.

**Communication and manner**

Patients were very positive about the communication skills and manner of the trainee endoscopists. Patients described the trainees as being friendly, approachable, reassuring, and calm.

“Her manner was great. She had a very friendly and professional manner” [Patient]

She was very approachable and open – she was able to put me at ease, it is something you could feel quite nervous about.” [Patient]

Trainees were also clear and effective communicators, and had provided an appropriate level of information about their care and what was involved in the procedure.

“The [NME trainee] was perfect she explained everything she told me things in a way that was easy to understand. I liked that the trainee clearly explained the next steps.” [Patient]

### 2.7 Impact on medical trainees and trusts

A key risk identified in the design phase of the programme was that the accelerated training programme could potentially have a negative impact on trusts by reducing capacity and output within endoscopy units and reducing training opportunities for medical trainees.
There were a small number of cases where interviewees suggested that NME trainees had faced competition with medical trainees when it came to accessing training lists. However, in the greater majority of cases this was a risk that was felt to have been successfully avoided by participating trusts.

Data collected through the JETS e-portfolio suggests that overall, medical trainees have not been impacted by the pilot. As shown in Figure 10 below, the number of dedicated training lists for medical trainees reduced by 11% from 2015 to 2016 across sites hosting a NME trainee. However, an even larger decrease over the same period was observed across all sites in England.

Figure 10 also shows that despite a small reduction in upper GI endoscopy output, the number of flexible sigmoidoscopy procedures and colonoscopy procedures increased in NME-hosting sites but decreased across all sites. However, it is important to note that it is not possible to attribute differences in output to the presence or absence of a single trainee NME within a trust or to understand differences observed between NME sites and non-NME sites. Other factors may have played a role in this, for example many of the participating trusts are also those rolling out the Bowel Cancer Screening Programme which has required performing additional flexible sigmoidoscopies or colonoscopies.
Figure 10: Percentage changes in the number of dedicated training lists, upper GI endoscopy procedures, flexi-sig procedures, and colonoscopy procedures among medical trainees from 2015-2016

Feedback from trainees and trust staff suggests that because of the programme, some trusts were struggling to meet demand or had to implement measures to increase output or accommodate extra training lists. For example, some supervisors and mentors had to take on extra lists.

“I know her mentor is having to do an extra list to pick up the numbers that they’re losing. The trust can’t afford to lose them because they still have their commitments and targets...It puts a lot of pressure on the unit.” [Cohort 2 line manager]

Regardless, trainees and staff alike acknowledge the benefits at the end of the programme, and the extra capacity that a NME can add to the unit. As shown previously in Figure 6 on p.33, trainees and supervisors and mentors in the Cohort 1 follow-up surveys most stated that the trainees, after completing the programme, were helping to free up the capacity of medical colleagues.
2.8 Case studies capturing progress since completion

The following case studies draw on interviews with four trainees and their supervisor and or mentor from Cohort 1. The interviews took place approximately three months after trainees had completed the NME training programme. Fictional names have been used to protect the anonymity of the case study participants.

Case study 1

Theresa joined the NME programme with 20 years of nursing experience. She also came with lots of knowledge of upper GI and had worked as a nurse practitioner and prescriber. However, she did not have a background of working in endoscopy departments and so the learning curve and level of preparation required was significant. During the programme she was partially released from her previous role (c.50%) and focused on the upper GI modality. She successfully completed all the elements of the course within the six-month timeframe and is now working full time as a nurse endoscopist.

It has taken her longer than expected to get her job title and job description finalised with her trust, but she expects this to happen in the next few weeks. In her new role of nurse endoscopist she continues to work at Band 7. Alongside completing dedicated endoscopy lists, in this new role she attends multi-disciplinary team meetings and assists with service audits in the endoscopy department. As her role develops the plan is for her to lead the development of a nurse-led endoscopy service at her trust and to take on more of a role in training colleagues. She also intends to train in the lower GI modality, at a time when there are fewer registrars doing the same within her trust.

Theresa is really enjoying the experience of having her own dedicated lists. On an average week, she completes 5 lists and tends to have 10 points per list. She expects this to increase as she further builds her skills and confidence. She feels that she has become confident when it comes to the basic skills associated with scoping. Because of her background as an independent practitioner she also feels well placed to exercise the leadership qualities expected of her and with her ability to work autonomously.

In her new role, she is already confident that she is making a good contribution to meeting capacity needs at her trust. She emphasises that in her role she can be both more flexible and more dependable when it comes to completing lists compared with more senior colleagues, who often have to cancel lists. Another positive impact of her new role is that it is already freeing up consultants to focus on more specialist procedures.

Theresa does one training list each week where she focuses on learning therapies. Following the programme, her supervisor and mentor continue to hold regular meetings and to have ad hoc catch-ups, and this ongoing support has been essential in helping her to settle into the new role. Other helpful factors have included:

- Close support from wider colleagues in the endoscopy department to support her in the role.
Ensuring that her service lists were appropriate in terms of size and type and that staff were not rushing her in terms of her workload.

Being ready to ask for guidance when encountering a challenging case or clinical decision.

Recognising that towards the end of a list – as you one gets more tired – she needs to take even more care to ensure that she hasn’t missed anything and has completed each step effectively.

Reflecting on the NME programme she says that it has definitely prepared her for the role. However, she emphasises that to really succeed you have to take responsibility for your own learning curve and push yourself to expand your knowledge and experience.

**Case study 2**

Sarah joined the NME programme as a Band 6 nurse who had worked in an endoscopy department for the last 3 years. During the programme, for the most part she was supernumerary, however she attended to few tasks each week that were associated with her old role, such as coordinating the wards once a week. Sarah successfully completed all elements of the course within the six-month timeframe and she is now a Band 7 nurse endoscopist. Achieving this success in the accelerated timeframe depended on her mentor and supervisor investing significant time into supporting her through the course.

In her new role Sarah is doing one list a week independently and her supervisor notes that working without having someone looking over her shoulder has been an important next step in her building her confidence and capabilities. While she is comfortable with the technical elements of scoping she still sometimes needs advice when it comes to managing the findings and organising the follow-up. While her supervisor is confident that she can carry out procedures safely and competently, as a newly qualified endoscopist she notes that Sarah does not work as rapidly as an experienced endoscopist. Therefore, she typically has less than 8 points per list.

Alongside this dedicated list, Sarah continues to complete procedures alongside her supervisor and she benefits from ongoing catch-ups and support. From time-to-time Sarah will do ad hoc procedures for doctors where cover is needed. Sarah would like to have more dedicated lists. However, at the moment there is a lack of appropriate lists for her to do, and there is not always the appropriate support on-hand in the department that would allow her to carry out the more complex cases.

Alongside scoping, her supervisor is keen to see her build a range of skills associated with a senior nurse role and would like to see her leading the development of the service. So far, she has been refreshing and updating the department’s policies and protocols and been assisting the endoscopy lead with other ad hoc tasks such as auditing. In the longer term her supervisor and colleagues would like to see her developing a nurse-led dyspepsia clinic or an outpatient clinic where she would have much more control over her role and would have
responsibility for the end-to-end patient pathway. It was emphasised that carving out a role for Sarah will take time as they do not currently have an established teams of NMEs.

In terms of the impact of her role on the trust, both she and her supervisor feel that it is too early to expect her to be making a significant contribution to service demand. However, in the longer term this is an expected impact. A challenge to expanding the number of lists she does is that there are a large number of registrars training at her hospital and so this means that there is currently a good supply of endoscopists. However, looking forward, when it comes to covering holiday seasons in particular, it is anticipated that her role will make an important contribution to meeting service demands and filling capacity gaps.

Reflecting on the impact of the programme, Sarah feels that it has provided her with “a baseline” of knowledge required for the NME role. Furthermore, being on the programme ensured that her trust gave her a level of support and access to lists that otherwise would have been very difficult to achieve in a busy teaching hospital, where there are a lot of medical endoscopists trying to train. When it comes to how the course might have better prepared her for the role, she feels that it could have placed a greater emphasis on how to effectively manage adverse incidents and complications during procedures through scenarios exercises and by watching videos. She feels that the course could provide a greater depth of information about the variety of pathologies that they will come across and how best to deal with them.

Case study 3

Erica was already employed as a trainee nurse endoscopist by her trust when she joined the NME programme and she had a job plan already written for her which was to be put into action once she achieved JAG certification. Within her endoscopy department there were already four nurse endoscopists in place, so wider colleagues had a good sense of what her role would look like once she completed the programme. Erica was supernumerary when undertaking the course and completed all the elements within the six-month timeline. Having finished the programme she moved from Band 6 to Band 7.

In her new role Erica has been completing an average of five lists per week and each list typically has 8 points. She also does ad hoc lists to backfill vacant lists and cover for colleagues. As well as achieving JAG certification, she has been observed by the department clinical leads who have deemed her to be competent to independently scope simple direct to test and two-week rule referrals. Once a week she also has a training list with a consultant in order to learn from and scope the more difficult cases.

Since finishing the course she has been completing lists across two different hospital sites in her trust. An early challenge has been that at the hospital which is not her primary base the team very much rely on their current nurse endoscopists to make clinical decisions, so it’s taken some time to manage their expectations and make it clear to them what she can and cannot do at this stage. Working across two sites has also meant that she has had to get used to different protocols and ways of working and the two different types of scope. When
using the model she is less familiar with she tends to be a bit slower to complete a scope and therefore needs to do a reduced list size.

Aside from the challenges associated with working across two sites, she has encountered a certain amount of resistance from a few “embedded consultants” who have reservations about the concept of the NME role. She has also found exercising leadership during procedures to be a challenge, because she is having to direct and manage nursing colleagues who were previously in the same role as her. Initially, she found that the level of direction and support she received from senior colleagues and managers was lacking. She therefore organised a ‘sit down’ to plan her role and initiate the workplan which had been originally drafted and this has helped.

Reflecting on her role she feels confident that her scoping is having a positive impact when it comes to meeting service demand at her trust; especially because across both hospitals there is a shortage of NMEs.

Looking forward, her plan is to build her confidence and capability in what she is already doing so that she can increase the number of lists she does each week and the number of points per list. She also plans to train to do colonoscopies over the next 18 months and to get a nurse prescribing qualification so that she can issue sedation.

Reflecting on the design of the programme and how well it prepared her, while she is positive about the content and delivery, she emphasises the course had not really prepared her for dealing with very anxious and uncooperative patients who can cause her to lose her sense of calm and confidence. To get the most from the NME programme she emphasises that you need to push yourself and push your trust so that your training needs and access to lists are met. She also emphasises that the programme Faculty need to be ready to intervene in a robust and proactive way when trainees are struggling with different local issues.

**Case study 4**

Jim was one of two NME trainees who did not have a background in nursing and instead joined the programme as a lead surgical care practitioner. During the programme he received minimal release (~10%) to participate in the programme and focused on flexible sigmoidoscopy. He successfully completed all the elements of the course within the six-month timeframe. Before participating in the programme it was agreed that with his trust that he would still continue to work mainly as a surgical practitioner but take on an NME role on the side.

Since completing the programme, Jim’s job role has not changed considerably. He continues to work mainly as a surgical practitioner but now additionally helps out with ad hoc endoscopy lists when needed, for example if staff are on leave. He is currently taking on an average of one list per week, though noting that he has not been able to do as many lists as he had hoped because of capacity issues within the unit. When he does take on lists, he carries out endoscopies independently and un-supervised, although an experienced
endoscopist is available in an adjacent room if needed. Reflecting on his role, he feels competent and confident working as an independent NME and attributes this to his background as a surgical practitioner, as he already had experience leading a team and operating on his own without supervision.

He believes it is too soon to report impacts and does not think he is making a significant impact when it comes to meeting endoscopy demands at the trust and freeing up capacity. However, he expects this to change once he takes on more lists.

Reflecting on the design of the programme, he thinks that the programme was hard and challenging but overall it prepared him well for the role of being an independent and competent NME. The course allowed him to build his scoping skills and gave him the necessary knowledge base for the role. However, he did not think the academic component contributed to this and, besides being able to become an NME in a shorter time-period, he is unsure about whether the training programme prepared him more than traditional training would have.

In the long term, Jim will develop as an NME by progressing to full colonoscopy and bowel scoping, though no formal training agreements with his trust have been agreed at this stage.
3. Effectiveness of the design and delivery

This section assesses the effectiveness of the design and delivery of the NME pilot programme. Each sub section covers a discrete stage or strand of the programme and begins with a descriptive summary covering activities and background details to help guide the reader (see blue boxes). This is followed by a summary of key evaluation findings, drawing on all relevant data sources. The majority of findings in this section have been organised under the headings ‘what worked well?’ and ‘what could be improved?’

This sub sections in this chapter are as follows:

- Management and oversight of the programme
- Recruitment and selection
- Overall reflections on the programme components
  - JAG Endoscopy Training System (JETS)
  - Induction Day
  - Taught Days
  - SLATE e-learning
  - Basic Skills Course
  - The NME Portfolio
  - Academic assignment
  - Assessment day
3.1 Management and oversight of the programme

The design and ongoing oversight of the NME programme has involved joint working between HEE, the JAG and key clinical representatives, who together formed the Endoscopy Working Group. The members of the group were:

- Harriet Watson (Guys and St Thomas’ NHS Foundation Trust)
- Rachel Fellows (Hull and East Yorkshire Hospitals NHS Trust)
- Donna Sidonio (HEE)
- Raphael Broughton (JAG)
- Viktoria Nameth (JAG)

In the first months of the pilot programme the Working group worked intensively to design and launch the programme. Over most of the first year of the programme they held weekly telephone calls which were attended by core members of the Working Group, with clinical members of the group inputting mostly by email where required.

What worked well?

Stakeholders expressed satisfaction with the governance arrangements for the NME programme and praised the commitment, size and composition of the Endoscopy Working Group.

The approach of having weekly catch-up calls was felt to be an effective means of managing the programme and had been especially important in the first few months of the programme when the course was being designed and the first cohort was being recruited. These meetings allowed the Working Group to manage the day-to-day challenges (e.g. discussing how to manage a trainee who was struggling to make progress or the booking of Basic Skills Courses) and to tackle ongoing strategic and planning issues.

An early success identified by Faculty members was that the members of the Endoscopy Working Group had been able to quickly establish good working relationships and clear lines of responsibility. They also felt that the working group had been agile and responsive in the face of logistical and teething issues that were encountered.

"The project team have gelled well; we didn’t all know each other before we started. We have been supportive of each other and worked well together." [Stakeholder]

Programme stakeholders felt that it was important that there was a ‘direct line’ to the HEE, which had been imperative when finalising decisions about the shape and delivery of the programme. During the design phase of the programme, there was a commonly held view that the key people, including those at HEE, had been prepared to listen, reflect and act on
what the Endoscopy Working Group said in terms of the design and how the programme would be perceived by the wider endoscopy community.

Programme stakeholders praised the high quality of administrative support provided by the JAG, as well as the effectiveness of the programme management provided by HEE. It was emphasised that the NME programme had benefited from having a programme manager at HEE who possessed the right skills and experience and had been adept at working under very time pressured circumstances and managing the competing demands and interests of different sets of stakeholders.

**What could be improved?**

It was suggested that medical stakeholders involved in the design and overseeing of the programme were sometimes more difficult to involve in the programme, especially if face-to-face input was required. However, the consensus was that medical stakeholders were engaged as required by email and telephone, and were appropriately involved at key points in the programme, e.g. sitting on the selection day panels. It was suggested that providing medical stakeholders with protected time or securing funding to support their contributions could be options to consider in any future programme.

While the JAG had been able to monitor individual’s progress through different elements of the programme, (e.g. numbers of procedures, SLATE e-learning levels) it was suggested that the Working Group had encountered difficulties monitoring whether trusts were continuing to meet the requirements which they had committed to in the Learning Agreement. When it came to support from trusts, Faculty members noted that they were often reliant on individual trainees to flag up where there were problems.

It was also noted that future cohorts may not have the same degree of support from the Faculty (compared with Cohorts 1 and 2) and so it would be even more crucial for them to be clear that the onus was on trainees to be proactive and to report challenges and seek advice where necessary. Programme leads stated that for future cohorts this message will be made very clearly at the Induction day and in the programme guidance materials.

Going forward the programme leads have committed to reviewing and strengthening the mechanisms used to monitor the progress made by trainees and the extent to which trusts are meeting the requirements set out in the Learning Agreement.

Given the importance of raising challenges early and tackling challenges proactively programme leads are also exploring applicant’s ability to do these things in the recruitment process and are reviewing the guidance issued to trainees and supervisors and mentors relating to this.
3.2 Recruitment and selection

There were three waves of recruitment and selection involved in securing the 40 trainees who were selected from a total of 113 applicants who applied. Trainees from Cohort 1 were recruited in the first wave and the bulk of Cohort 2 was recruited in the second wave. A third wave of recruitment was undertaken at relatively short notice, to ‘top up’ the second cohort to ensure that the overall target of recruiting 40 trainees was met. This third phase was needed because there had been a few candidates who dropped out before commencing the training programme.

Recruitment took place between September 2015 and April 2016 and the process was jointly overseen and delivered by HEE, the JAG and members of the Endoscopy Working Group. The recruitment of Cohort 1 involved HEE sending out invitation letters to acute NHS trusts across England inviting them to nominate suitable (Band 5 or above) applicants to submit an application. For Cohort 2 the same approach was used. However, in this wave of recruitment, trusts had a longer timeframe in which to respond and the programme had more success when it came to the invitation reaching the right people at the trusts.

Having received the invite, trusts frequently ran an internal recruitment process to select the trainees that they put forward. In some cases, for example where they had recently employed a trainee nurse endoscopist, applicants were automatically put forward by their trust for the programme.

Having submitted their application forms, shortlisted candidates were asked to attend a selection day, which was hosted and organised by the JAG in London. On the selection day, applicants were asked to take part in a three-stage process. This involved rotating around three stations which involved:

- A short interview exploring the applicant’s personal motivations
- A short interview exploring the trust arrangements for supporting the trainee and their participation in the pilot
- A practical task which tested applicants’ ability to take in and recall information about the use of a scope, and to ask questions about anything they were not sure of.

What worked well?

Faculty members and programme stakeholders felt that the rigorous recruitment and selection process carried out in the NME programme had been one of the programmes’ key strengths.

Given the importance of ensuring that the recruitment process was fair and rigorous, both programme leads and trainees felt that the use of a face-to-face selection day was necessary and that the additional resources required had been justified.
“We knew we wanted to interview everyone we shortlisted, doing this face-to-face was important. We had to do that to be accountable, and that’s proved worthwhile.” [Faculty member]

“The rigorous selection process for trainees impressed me. It has been key to the success of this. The people I met in the first cohort were really motivated learners, above what you’d expect...” [Faculty member]

The approach of rotating around three different stations at the Selection Day was popular with trainees and in their view offered the following benefits:

- At each stage it was very clear what was expected from you and moving from one station to the next gave a sense of momentum to the process.
- It felt less overwhelming compared to one long interview which attempted to cover all of the elements.
- Candidates could meet a wider cross section of stakeholders involved in delivering and overseeing the programme, compared with being interviewed by one panel.
- The process felt fairer, because if you performed less well at one station, the next one felt like a “fresh start”.

“I liked moving between the stations. Each one focussed on different aspects. The practical task was harder than expected, as I was a bit nervous. Each section had a rationale and probably was important to determining out appropriateness. I thought that a good mix of questions was asked.” [Cohort 2 trainee]

Trainees were positive about the mix of people on the interview panel on the selection day. It was felt to be particularly important to have representation from senior nurses alongside consultants. This was important given that it was a non-medical role that they were applying for and because it helped to signal the potential for career progression in the role.

Most trainees felt that the interviewers achieved the right balance between being formal and professional, while also being friendly and reassuring. Trainees also liked the fact that the programme leaders on the interview panel were the people they would later see on the course.

Faculty members praised the clear and transparent scoring criteria that was used to select applicants. They also emphasised that it had been correct and necessary to reject people who were otherwise potentially suitable due to their institutional arrangements not being suitable. For example, some trusts, had seen the NME pilot as a way to “dig themselves out of a capacity problem” but had not adequately thought about the long-term and wider issues about delivering training on site and ensuring continued support after the programme ends.
Faculty members emphasised that the recruitment of Cohort 2 had benefited from having a longer timeframe. This meant that trusts could spend more time identifying suitable candidates, including running internal recruitment processes. Faculty members suggested that any future recruitment provide a reasonable timeframe in order to make it easier for trusts to accommodate this process.

Faculty members felt that the use of an internal recruitment process meant that trusts could be more confident that they had identified high calibre applicants. When undertaking this process, trusts typically used the detailed person specification that was drafted by the NME Faculty.

“It got sent to us from HEE to the trust via my manager, she put out an invite. We all had to do an expression of interest and submit our CVs and explain our role and how we feel our role could benefit into the new role. I used the essential criteria and did a bit of supporting evidence, then we did interviews in the trust and from that it was decided I would get the role.” [Cohort 2 trainee]

What could be improved?

While the recruitment approach used across Cohorts 1 and 2 was felt to have yielded high quality applicants and achieved the recruitment targets, because the invitation was received by clinical endoscopy leads, this tended to limit the scope for those based in other departments and in non-nursing roles to apply. Faculty members felt that in order to promote a diverse intake and support the sustainability of the programme it would be important to address this. For example, by undertaking awareness raising and recruitment activities targeted at the other relevant specialities, such as radiology and physiology.

Other areas for improvement, which have been identified in previous interim reports and addressed by the Endoscopy Working group included:

- Considering the possibility of having the academic partners represented on the panel so that they could outline the expectations associated with the academic portfolio and assignment. One supervisor also suggested that there could be value in having a patient or ‘lay’ person on the interview panel.

- Providing more information in advance to trainees about the selection day, particularly the level of advance preparation required regarding their trust arrangements for supporting their participation.

- Providing more detailed information about the requirements of the programme. Here, several noted the expectations, activities and timings associated with the programme only became clear at the Induction Day. This meant that their preparation and planning was delayed.

“The info was very limited in terms of what came from my trust, they said there was a training opportunity available and we had an
internal interview process at the trust. I tried to prepare and read up on things online but there was very limited info available, I approached my manager and she didn’t have much either. The lead gastro at work heading the internal interview was also very vague.”

[Cohort 2 trainee]

- A Faculty member leading the academic component suggested that when recruiting any future cohort, the NME programme should be more explicit about the intensity of academic work involved. They also suggested that it would indicate that the programme is operating at ‘Master’s’ level so that trainees can adequately prepare and demonstrate relevant experience in their application. For example, highlighting where they took part in an audit, supported a change management process or contributed to a research project.
3.3 Overall reflections on the programme components

Trainees, supervisors and mentors and Faculty members were positive about the overall design of the NME programme, with many emphasising that the combination of activities were, broadly speaking, appropriate and fit-for-purpose. This is reflected in the follow-up survey where as shown below, Cohort 1 trainees were mostly positive about the extent to which the different elements of the programme had prepared them for the role of a NME.

**Figure 11: To what extent do you feel that the following elements of the NME programme have prepared you for the role of Non-Medical Endoscopist? (Cohort 1 trainees, n=13)**

<table>
<thead>
<tr>
<th>Element</th>
<th>5 - To a large extent</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1 - Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of 200 procedures</td>
<td>92%</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and support from your mentor</td>
<td>92%</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and support from your supervisor</td>
<td>77%</td>
<td>15%</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taught days</td>
<td>69%</td>
<td>31%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLATE e-learning package</td>
<td>62%</td>
<td>23%</td>
<td>8%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Basic Skills Course</td>
<td>46%</td>
<td>15%</td>
<td>23%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Assessment day</td>
<td>39%</td>
<td>39%</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NME portfolio</td>
<td>31%</td>
<td>31%</td>
<td>31%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Academic portfolio</td>
<td>15%</td>
<td>23%</td>
<td>39%</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td>Academic assignment</td>
<td>15%</td>
<td>8%</td>
<td>15%</td>
<td>39%</td>
<td>23%</td>
</tr>
</tbody>
</table>

The only element where results were more mixed was the academic assignment, where more than half of the first cohort indicated that it had not prepared them for the role. Reflecting on this result, it should be noted that in Cohort 1 there were some specific challenges associated with the academic assignment which were addressed in Cohort 2. For example, as noted previously, the academic assignment had a sharper and more practical focus in terms of the nature of the task. Therefore, it is possible that the follow-up feedback from Cohort 2 will be more positive about the extent to which it prepared them for the role.

Further discussion of the academic assignment can be found on p.67.

Drawing on interviews with trainees, supervisors and mentors and Faculty members, key reflections about the strengths of the programme design included:
- That the taught days provided crucial protected learning time away from current roles and the content and quality of teaching were felt to be of a very high standard.
- The SLATE e-learning levels have added a lot of value to the programme, and trainees felt that this element of the programme had positively impacted on their practice, particularly pathology recognition.
- The adjustments made to the Basic Skills Course for NME trainees have proven to be highly beneficial to trainees. The adjustments were having a nurse or NME trainer co-delivering the course and the courses being attended by NME trainees only.
- The combination of support from Faculty members (e.g. pastoral support and troubleshooting) alongside the day-to-day training and support provided by supervisors and mentors at trusts helped trainees to manage the demanding workload and steep learning curve associated with an accelerated training programme.

There is strong evidence that the programme Faculty has been critically reflecting on the effectiveness of the programme and keen to listen and act on feedback and suggestions from trainees and others on how elements might be improved. A wide range of changes have been made to the design of the course as summarised in the table below and covered in greater detail in Appendix 4.

**Table 3. Key changes made to the design and delivery of the NME programme**

<table>
<thead>
<tr>
<th>Change</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the quality of information provided during the induction phase</td>
<td>Trainees called for clearer and more comprehensive information about the expectations and component of the programme</td>
</tr>
<tr>
<td>Delivering the taught days in two-day blocks instead of one-day sessions</td>
<td>Minimises the travel and disruption associated with being away from home and day job, overnight stay provides increased networking opportunities</td>
</tr>
<tr>
<td>Increasing the focus on non-technical elements especially at the taught days. E.g. clinical decision making, coping with adverse incidents</td>
<td>Evidence base and feedback from trainees suggests that developing the non-technical elements is especially challenging to achieve within an accelerated timeframe.</td>
</tr>
<tr>
<td>Increasing the number of taught days from 4 to 6 (delivered as three 2-day blocks)</td>
<td>Responds to trainees’ request to reduce the pace of sessions and compression of content</td>
</tr>
</tbody>
</table>
Utilise university infrastructure (project blackboard, filmed lectures) to make programme materials and content more accessible

<table>
<thead>
<tr>
<th>Allows trainees to revisit content and study in their own time more easily</th>
</tr>
</thead>
</table>

Shifting the academic assignment task to a practice focused case study

<table>
<thead>
<tr>
<th>Responds to trainees’ need for an assignment that has a more practical focus</th>
</tr>
</thead>
</table>

Making the clinical presentation a non-assessed formative task

<table>
<thead>
<tr>
<th>Reduce bottleneck of requirements in the final stages of the course and in turn reduce stress and anxiety levels for trainees.</th>
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</table>

Extending the timeline of the accelerated course from 6 to 7 months

<table>
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<tr>
<th>Ensure that programme is more achievable and realistic given the range of local barriers and challenges that can slow progress; supports trainees’ work-life balance</th>
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JAG Endoscopy Training System (JETS)

In order to receive JAG certification, trainees were required to register with and use the JETS system to record their endoscopic procedures; to plan their learning objectives and to undertake monthly endoscopic reviews. As well as giving trainees a summary of their practice it allowed the Faculty to monitor the progress that was being made. Alongside completion of the 200 procedures, there is a wider set of requirements for achieving JAG certification for the two different modalities.11

Trainees were consistently positive about the use of JETS. It was felt to be easy to register with the system and quick and intuitive to log procedures and carry out reviews. When trainees encountered technical issues (which was not a common occurrence), the technical support from JAG staff was fast and efficient to resolve any problems.

Many trainees said that the JETS data that they were logging provided them with a useful summary of their progress. For example, several said that the JETS summary proved to be useful during catch-ups with mentors and supervisors to help them reflect on the progress and plan next steps. Several trainees also said that they found it satisfying to see the “green ticks” appear as they logged procedures and met the certification criteria, and this helped them to feel positive about the progress they were making.

While most trainees appeared to log procedures as they did them, a few trainees got into the habit of logging their procedures in batches. This meant that those monitoring the progress

11 These are summarised in the flexi sig and upper GI endoscopy JAG trainee certification process documents.

Released
Final

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of trainees did not always have an up to date picture of activity. Several trainees emphasised that it was important to get into the habit of regularly using the JETS following a procedure. Trainees also emphasised that using the JETS to log procedures and get DOPS feedback soon after the procedure was important, because colleagues were more able to recall all of the pertinent details and offer thorough feedback.

**Induction Day**

Trainees were required to attend an Induction Day and were asked to attend the day with their clinical supervisor or mentor. For Cohort 1 the day was held at St Thomas' Hospital and for Cohort 2 at Liverpool John Moores University.

In the morning attendees received a series of presentations delivered by HEE and the Faculty members which provided an overview of the programme; set out the expectations for supervisors / mentors and trainees and described the different components of the programme.

In the afternoon, attendees learnt about the assessment methods. Next, trainees took part in an introductory scoping session while the supervisors and mentors attended a session exploring how they could best support trainees through the programme and meet the timescales.

**What worked well?**

Trainees across the two cohorts were broadly positive about the design and delivery of the Induction Day. When asked to give an overall evaluation score for the day via a feedback form, the great majority, across both cohorts, rated it as ‘very good’ or ‘excellent’.

Most trainees felt that the day provided an appropriate level of detail about the programme requirements and much needed ‘ice-breaking’ and networking opportunities. Several trainees also praised the commitment and enthusiasm shown by the programme leaders in introducing the NME programme. This had a motivational benefit for attendees and was seen as important given the demanding and intensive nature of the programme.

Trainees said that they particularly valued having whole room conversations about the potential challenges or concerns associated with the programme following the overview presentations. This was because many trainees had similar types of concerns and it was reassuring for them to be aware of this, and to tackle them collectively where possible.

The Induction Day also succeeded in giving clinical supervisors and mentors (where they attended) a clear indication of what was required from them and the wider trust. Both trainees and supervisor/mentors felt that it was a very good idea to have this representation on the day so that colleagues understood the programme and could “truly grasp” what was required from them and the wider trust in terms of support.
“It was good have my mentor there as a rep of the trust to take that info back so they could support me more, I think he learnt a lot from the day.” [Cohort 1 trainee]

“It was an excellent idea that we came, otherwise students can feel that they are a little bit on their own and people don’t quite grasp the input required, the induction helped to illustrate what was needed.” [Cohort 2 clinical supervisor]

**What could be improved?**

The main messages about how the Induction Day could be improved have been summarised below and these points have been shared with the Endoscopy Working Group to support their ongoing improvement of the programme design (see Appendix 4).

- Across both cohorts, participants felt that the opportunities to network and build relationships on the day should be maximised given that peer support was an important enabler for making progress. This could be achieved by organising a dedicated icebreaker session, holding informal evening events, and using name badges so that attendees could easily distinguish between who was a trainee and who was a supervisor/mentor.

- Trainees and faculty members from Cohort 2 in particular felt that there was scope for compressing the Induction Day to a half-day session. This would free up time for additional study time which was lacking for Cohorts 1 and 2. Trainees added that if this recommendation was taken forward it would be crucial to provide them with high quality induction material in advance of the Induction Day as noted in Table 3 above.

- While there was felt to be value in supervisors and mentors attending the Induction Day it was suggested that attending half of the day rather than the whole day might suffice, given the competing demands on their time. Others went further suggesting that an online or telephone session aimed at supervisors and mentors might suffice given the travelling that is involved.
Taught Days

Participants were required to attend four taught days which were held at St Thomas’ Hospital for Cohort 1 and at Liverpool John Moores University for Cohort 2.

Faculty members described the rationale of the taught days as about providing structured learning opportunities which would give trainees the skills and knowledge to move towards an advanced practice role. This was based on an assumption that the practical and hands-on skills associated with endoscopy were well covered at the Basic Skills Course and through work-based learning at their trusts.

The topics covered at the taught days was broadly the same across the two cohorts. This included report writing, pathology, interpreting abnormal findings, delivering difficult news, medico-legal considerations and clinical decision making. Each taught day was led by the two programme leads with sessional lecturers and guest speakers being brought in to deliver some of the sessions, such as sedation, consent and legal training.

As well as having structured sessions, the Programme Leaders facilitated group discussions at key points in the day so that trainees could share their thoughts and reflections on how they were progressing and identify challenges and solutions.

Cohort 1 had four one-day sessions, whereas cohort 2 had two two-day blocks. This meant that Cohort 2 participants had an overnight stay in Liverpool, with accommodation funded by HEE. Because key members of the Faculty were away during the summer months, the taught days for Cohort 2 happened in fairly quick succession in the first two months of the programme. Then – between June and September – there were few opportunities for face-to-face interaction and support. During this time support was accessible via email and trainees were asked to book in telephone catch-up calls with programme leads to discuss their progress.

In Cohort 1 trainees had access to an NHS network online forum where they could discuss any aspect of the course, raise issues and access course materials. For Cohort 2 participants were able to use Liverpool John Moores teaching infrastructure. This included the John Moore University’s Blackboard; an online learning space which held a range of course materials. Each taught day was also filmed and uploaded to Project Blackboard so that content could be revisited.

What worked well?

Trainees consistently reported across the interviews, surveys and event feedback that the taught days positively impacted on their skills and practice. Drawing on the follow-up survey and follow-up interviews with Cohort 1, there was broad agreement that the mix of topics covered and the support and guidance provided on the days was in line with their initial expectations, and was seen as highly relevant to the NME role.
Trainees in Cohort 2 had more regular contact with those leading the academic component at the taught days compared with the previous cohort, which was again welcomed. The academic leads were a more constant presence during the taught days and were more able to engage with and draw links with the whole programme rather than focusing solely on the academic component. As experienced nurse practitioners, they could also bring to bear additional relevant knowledge and skills to the Faculty.

Observation and interview data also indicates that the taught days particularly when delivered as a two-day block provided a much needed space in the programme where trainees could build relationships with their peers, offer mutual support and encouragement and build a sense of comradery. Trainees and programme stakeholders saw this as vital in a fast-paced and demanding programme.

“The main advantage of the study days is meeting colleagues in the same situation and trying to network a bit in your training. It is not like university, you are sort of isolated, [but at the taught days] you can share common anxieties, and it puts your mind at ease that everyone is going through the same problems and issues.” [Cohort 1 trainee]

Trainees across the two cohorts identified a number of other helpful features of the taught days:

- Taught days worked well where they involved a mix of sessions and activities as this helped to maintain engagement and energy levels over the long days.

- Participants benefited from the more experienced and seasoned teachers, including those who could adapt an interactive teaching style which was friendly, informal, tailored to the groups’ needs, involved whole group discussion and avoided long stretches of delivering PowerPoint slides.

- Having teachers from a mix of backgrounds, including experienced medics and senior nurses endoscopists was seen as important and the latter were felt to serve as important role models.

- Having programme leads and teachers who were ready to go “off piste” from the lesson plan where necessary (e.g. pointing to the latest developments in policy and practice, referring them to relevant articles and papers, or tackling a shared problem where it arose).

“I can’t fault that [the quality of the teaching] they’re sharing their experiences as well as getting us to share ours and if there’s something we need to know they are not averse to dropping where we are at and going of a tangent and trying to answer questions and give us what we feel we need if we feel that were not getting what we need.” [Cohort 1 trainee]
• Scheduling programme elements so that the taught days aligned with other elements of the programme, such as the SLATE e-learning. The alignment between different elements of the programme helped to reinforce understanding and develop practice.

• It was considered to be important that the taught days had some “slack” in their agendas so that the programme leads could provide pastoral support, including one-to-one catch ups where trainees could share and address challenges and worries.

Because of the fast pace of the taught days and the amount of content to get through, trainees across both cohorts emphasised the importance of undertaking follow-up study to get the full value from the taught days. In doing this, participants greatly valued being able to access resources via Project Blackboard, with several indicating that had watched the filmed lectures to build and recap on specific topics.

“It’s full on and heavy sometimes there is a lot to get through, but we knew that was how it would be. I don’t think it’s too much, it’s about doing the self-study when were not here, that’s how this works.” [Cohort 2 trainee]

“It’s good that everything is there on Blackboard so you can revisit content in your own time.” [Cohort 2 trainee]

Cohort 2 trainees felt that delivering the taught days in two-day blocks rather than as one-off days offered distinct benefits and on balance felt that this approach should be maintained for future cohorts:

• The overnight stays involved in attending the two-day blocks was felt to provide an ideal opportunity for trainees to form and maintain supportive relationships with one another. It was suggested by Faculty members that this meant that this cohort were able to develop stronger and more supportive relationships with their peers than Cohort 112.

• The two-day blocks minimised the amount of travel and the disruption caused by time spent away from the day job and other responsibilities.

“Having the two days together helped with the transport – getting there etc. It makes sense to stay there. And you get into the swing of the environment and the support from the people around you.” [Cohort 2 trainee]

12 A Faculty member noted a challenge that stronger relationships and more frequent communication between trainees meant that anxieties about different elements of the programme could spread and grow more easily across the cohort. This meant that Faculty members had to spend more time advising and reassuring trainees than they otherwise would.
The two-day blocks while tiring, enabled an even greater immersion in the content and learning opportunities which some trainees found beneficial.

“When training days – these are layering and repetitive and that's reassuring. The elements interlink – the more time you spend on them clearer it gets.” [Cohort 2 trainee]

What could be improved?

Across both Cohorts trainees emphasised that the taught days often felt rushed because there was so much content to get through. The fact that the taught days occurred in two-day blocks for Cohort 2 was felt to make the sessions even more tiring and intense, and this could make the content more difficult to digest. Participants therefore called for the number of taught days to be increased, with several saying that there should be at least six taught days. This request has been addressed for the 2017 cohorts.

Trainees in Cohort 2 emphasised the importance of the taught days being evenly spaced out over the programme so that there were no long periods where they had no or minimal contact with the Faculty and with other trainees. The frontloading of the taught sessions in the first two months of the programme as happened in Cohort 2 should be avoided in any future programme. Trainees noted that while the catch-up calls were organised between trainees and programme leads were helpful, they were not seen as an effective substitute to the support that was available at the taught days.

A Faculty member suggested that with an expanded number of taught days there would be value in covering some of the “core medical” content in greater detail. For example, it was noted that a longer session on the patient pathway would be beneficial. A few follow-up survey respondents also felt that more scenario-based sessions including those focused on adverse incidents would also be of significant value.

Trainees praised the use of the sessional medical lecturers and guest speakers who had different types of specialist knowledge and wondered whether their input could be expanded for further cohorts.

Trainees called for consistent numbering of slides which would help them to return to content more easily during private study time. Several also called for the most complex and unfamiliar content to be delivered in the first half of the days, as this was when they would be most able to take in this content.

Participants across both the cohorts requested that some of the modality specific content could be separated since they felt that they were at full capacity in terms of digesting new content and because it was a challenge to get through all the content on taught days. Responding to this, Faculty members felt that going forward it would be important to highlight the value and relevance of the modality specific content for all trainees.
SLATE e-learning

SLATE is a self-directed e-learning package for GI endoscopy which aims to assess trainees’ knowledge and skills on practical elements of GI endoscopy as well as covering areas such as lesion recognition, describing common pathology or anatomical variants, and patient management.

There are eight levels of courses to complete, regardless of whether trainees are training in Upper or Lower GI Endoscopy and levels 1 – 6 were mandatory within the six-month timeline:

- Level 1 – Scope handling
- Level 2 – Normal anatomy
- Level 3 – Common pathology
- Level 4 – Less common pathology
- Level 5 – Differential diagnosis
- Level 6 – Classification of pathology
- Level 7 – Associated pathology
- Level 8 – Endoscopic report and management plans

Having received their login details trainees could access the SLATE levels at any time that suited them using a PC, Mac or tablet. The courses can be stopped and resumed at the point at which trainees left them, providing some flexibility to their learning. When completing the levels, trainees could have as many attempts at answering the questions as they needed to reach the ‘threshold’ mark and could revisit the levels once they had passed in order to refresh or build on their knowledge.

The SLATE e-learning was a product that was in-development during the time that Cohort 1 and 2 were be delivered. For this reason, after completing each level trainees were asked to submit evaluation feedback. Originally, trainees were required to complete all 8 levels by the end of the programme and to complete at least one level per month. However, because the development process took longer than anticipated, the final levels (7 and 8) were not available to trainees within the six-month accelerated timeframe. After the Faculty confirmed that the final two levels were not critical to trainees’ fitness to practice, completion of these levels became optional.

What worked well?

SLATE was seen as an innovative element of the programme. Trainees and supervisors and mentors valued this as an additional method for systematically developing their knowledge and clinical practice, particularly around pathology and lesion recognition, and building on what was learnt at the taught study days.
“I think the SLATE is the best thing outside of the hospital learning programme. We went through some of it together and it looks very extensive – it’s a numbers game: more you see the better you get. The explanations were extremely clear and measured, they don’t assume inherent knowledge, also it’s not just one big of unstructured information, it's organised into levels and themes.” [Cohort 1 clinical supervisor]

Many trainees reported that the platform was well designed and liked the fact it was online so they could work through the levels in the locations at the times and pace that suited them. Trainees also valued the fact that they could repeat the levels as many times as was necessary in order to build and refresh their knowledge and skills.

“I love it - you can work on it at 9pm at night or 10am in the morning – it is flexible… and I can go again and again through a level to get my score up… I like that there is no one berating you if your initial score is rubbish – it’s very much adult learning. It makes me feel like they trust you to learn in this way.” [Cohort 1 trainee]

The follow-up interviews with trainees highlighted the fact that many are continuing to repeat particular SLATE modules to maintain and refresh their knowledge. Trainees were keen to know if they would be able to use the SLATE tool indefinitely or whether access would be restricted at some point.

**What could be improved?**

One of the main challenges encountered over the pilot was the delays in the levels being released. Many trainees had to wait long periods of time until the levels were released, which impacted on learning and time management for a few trainees. However, given that the tool has now been finalised this challenge is not expected for future cohorts.

There were mixed views about when the different SLATE levels were released. Some trainees liked the fact that levels were released in stages in line with their expected progress. However, others would have preferred if the levels were released all at once, at the start of the programme. Another issue was that while trainees could repeat the levels multiple times, the questions were exactly the same each time which some trainees thought limited the learning potential as they had memorised the correct answers. Some also suggested that a few of the images used could better higher quality so that users would be better able to make sense of them more easily.

Across both cohorts a few trainees questioned the format for SLATE. Several trainees felt unclear about why the platform began by quizzing and scoring them before they had been introduced to the learning content. However, others felt that it made sense to begin the module in this way.
“The only thing I dislike is you have to answer all the questions first before you’ve done any learning so you either have to know it all or look it up as you do it. That said I do think trying to answer the questions first and then knowing where your weaknesses lie does help you plan what you need to learn so I can understand why it’s probably that way.” [Cohort 2 trainee]

Basic Skills Course

In line with the JAG certification requirements, all trainees had to attend a Basic Skills Course run by a JAG approved training centre. The Basic Skills Course for Upper GI trainees is a three-day course, while the course for those training in Lower GIs is a two-day course.

The Basic Skills Course combines a series of small group and one-to-one teaching sessions, videos, hands-on training model work and supervised endoscopy. Each trainee is required to undertake a number of procedures under the supervision of expert trainers. The one-to-one teaching focuses on the development of individualised learning outcomes and plans to progress skills.

While the course aims to cover the basics of endoscopy, it is recommended that those attending it need to have some familiarity with handling a scope and some experience of undertaking endoscopic procedures.

Rather than all trainees from each cohort attending the same course, trainees completed the course at several different training centres on different dates. This was because the availability of places was limited and places get booked far in advance.

What worked well?

The Basic Skills Course was well received by the majority of trainees and most said that it had helped them to prepare them for the role of an NME. Trainees reported impacts on their knowledge, skills and practice, and felt it provided a good balance between learning and theory alongside more practical and hands-on training.

The Basic Skills Course was particularly helpful as it provided trainees with detailed feedback on their practice, including identifying bad habits when scoping and providing tips and strategies for improving their practice when undertaking procedures. As well as getting feedback on their own practice, trainees valued being able to hear the feedback given to others.

“It really made me think about where I am and what I am doing and how I need to learn more slowly and systematically. I got feedback on how I hold the scope and how bad practice might limit me, I was
taught how to grip a scope a different way and at first I found this extremely difficult but now it’s getting easier and can see how it will help me – it got me into good habits. It was a chance to fine tune and perfect my skills, and become more aware of the techniques that you need.” [Cohort 2 trainee]

Many trainees also valued the opportunity to work in a new and unfamiliar endoscopy department which gave insight into how other departments are run and offered a chance to adapt and work in an unfamiliar setting, which was seen as an important skill for an NME.

“You can be very protected in your home setting, if you work somewhere else you can get new feedback, staff can be more honest too.” [Cohort 2 clinical trainer]

“I think it went well, going to a new unit with different people and different staff, but this is a good challenge it helped us to learn things in a different way, out of our comfort zone.” [Cohort 2 trainee]

Trainees praised the way the Basic Skills Course had been tailored to their needs, noting the small class sizes and the fact that courses were only attended by other NMEs. Trainees also valued having an experienced endoscopy nurse trainer alongside the medical trainer, who could provide further insight and support to the role of an NME.

The timing of the Basic Skills Course was seen to be important. However, the limited number places meant that completing the course at the optimum was often difficult. Trainees consistently emphasised the importance of attending the course with at least some scoping and endoscopy experience in order to get the most benefit, but not too far into the programme, when the course may not be as useful. Although in some cases where the content covered was already familiar to some of the trainees (e.g. because it had been covered at a previous taught day), it was felt to be helpful to revisit this content to reinforce and build on what they knew.

Most trainees praised the endoscopy staff at the training centres as being friendly, helpful and accommodating. This was regarded as important because a number of trainees reported feeling quite nervous about working in an unfamiliar environment.

What could be improved?

Across both cohorts there were a small number of trainees who felt that they and their fellow trainees had not always been able to complete the course at the optimum point in their learning journey.

- For example, one trainee noted that while they had benefited from attending the course, others had done 150 procedures or more and so the practical training was less useful. It was suggested that people who had done a large number of
procedures would find it more difficult to adjust their practice as they had become more set in their ways.

- Another trainee described her experience of feeling far behind the other trainees on the course in terms of her scoping ability and level of confidence. Whilst overall, she felt that she had learnt lots from the course she came away feeling less confident about her abilities.

  “I did the Basic Skills Course and whilst I learnt loads I was disappointed. I had done far fewer procedures. I was very inexperienced compared to others there and I felt it was geared to people who had done more. It felt like the way the practical was done was more like an assessment rather than training, it didn’t match where I was at... the other trainee in my room had done 160 procedures – I was at such a different level [and so it] felt like I was holding them back, we were poles apart in our experience.” [Cohort 2 trainee]

- Booking places at the optimum time was a challenge because across England there continues to be a limited number of places available and so compromises in the timing and location of the course were sometimes difficult to avoid. The Endoscopy Working Group was able to mitigate this challenge to some extent by organising additional training courses to cope with the increase in demand for NME Basic Skills Course training places.

- To help avoid this challenge in the future, programme stakeholders recommended that for any future cohorts, places on this course should be booked at least five months in advance where possible.

- In a small number of cases, trainees reported that the numbers of patients to scope was not always ideal. In one instance, the training hospital had a lack of patients to scope and some trainees came away feeling that they had missed out on this learning opportunity. In contrast, another trainee reported that at her course there were too many patients on their training lists. This meant that the trainers had to focus their time and energy on getting through the lists rather teaching and providing thorough feedback.

  “I felt quite pressurised to get through morning lists; I think there was a lot of pressure on my trainer. The trainers didn't have enough time to give much feedback. One trainer managed to give me a DOPS [Direct Observation of Procedural Skills] but the other one didn't have time in the end.” [Cohort 2 trainee]
Portfolios

Cohort 1 and Cohort 2 trainees were required to complete the NME Competence Assessment portfolio which covers issues such as communication, service improvement, quality and equality and diversity.

Completing the portfolio involved trainees working with their mentors and clinical supervisors to provide evidence that they have achieved relevant clinical competences for their role. As part of the process trainees were advised to hold an initial training interview with their supervisor to discuss their aims and learning needs and to capture this in the first section of the portfolio.

Alongside the NME Competence Assessment Portfolio trainees were also asked to complete an Academic Portfolio.

Many participants valued the process of completing the NME Competence Assessment portfolio and saw it as an important element of the programme and a useful tool for a career as an NME. In the Cohort 1 follow-up survey, most trainees agreed that building the portfolio had helped to prepare them for the role of a NME.

“That’s a really useful document and I think it’s useful for the future – I’ll be able to continue to use it after the course and add to it. It’ll be a really good document to prove what we’ve done.” [Cohort 2 trainee]

Overall most trainees did not highlight any particularly challenging competencies, though there were some competencies that trainees had not been exposed to, such as high-level audits, service improvement, and removal of polyps. Trainees found many of the competencies easy to perform as they had been developed throughout their career, such as communication and hand-washing. However, some had difficulties evidencing these skills and experience in their portfolio. For example, trainees were unsure how to prove that they could wash their hands thoroughly.

“I agree with the competencies in the portfolio but sometimes the way we have to evidence them is difficult.” [Cohort 1 trainee]

Additionally, many trainees and clinical supervisors did not know what was required for the portfolio, for example what format and/or writing style should be used to fill out the document. Overall, trainees and clinical supervisors felt that there could have been more guidance and clarity on what was required although there is evidence that for Cohort 2 this had been addressed.

“The guidelines seem to have changed. It’s now very clear there are certain criteria you need to meet for each bit. At the start, they
“seemed to want a lot of evidence and now they’ve gone to more bullet points.” [Cohort 2 trainee]

Some trainees thought the portfolio was too time-consuming to complete, due to the number of competencies and length of the portfolio and the time required to evidence competencies. For various reasons, 5 trainees were given extensions to submit their portfolio as they were unable to complete it in the 6 months.

A few trainees across both the cohorts thought that completing to different portfolios (as outlined above) was too time-consuming or were confused as to the different requirements of the separate portfolios.

“I was quite confused…For me it would make sense to have the NME competencies portfolio included in the academic portfolio – have one portfolio to deal with.” [Cohort 2 trainee]

Academic assignment

Cohort 1 trainees were required to submit a 6,000-word academic assignment worth 30 modules credit. This was a reflective practice essay which is a learning approach commonly used in nursing. The aim of reflective practice is to study your own experiences to improve the way you work. The process is designed to improve the quality of care you can give and close the gap between theory and practice.

To help make the academic assignment more manageable (alongside the other tasks) and more clearly practice focused, for Cohort 2 the academic assignment was reduced to a 4000-word assignment and trainees were asked to produce a case study focused around a particular clinical case. Completion of the assignment again gave trainees university credits at degree or masters level.

What worked well?

There were mixed views among Cohort 1 and Cohort 2 on the benefits of an academic assignment. Those who saw it as beneficial felt that way because it brought together learning from the taught study days as well as hands-on training.

Comparing the two different academic assignment tasks, one of the main reasons the case study approach used in Cohort 2 was preferred by trainees was because it was felt to be better suited to a range of professional backgrounds, whereas the reflective writing assignment task set in Cohort 1 was felt to be an approach that was much more familiar for those who had completed nursing degrees.

While the 6000-word assignment set in Cohort 1 was often described as being excessive by trainees, none of the trainees from Cohort 2 who completed the 4000-word academic
assignment made the same point. This suggests that this change was positively received by trainees.

As noted in the Taught Days section, in Cohort 2 because the university hosted the taught days, support with the academic assignment and other academic elements were more accessible.

**What could be improved?**

Overall, many trainees across both the cohorts struggled with the assignment and found this to be one of, it not the, most time-consuming, challenging, and stressful component of the programme.

Trainees who had not recently taken an academic course found it particularly difficult, as did those who only had partial release, who struggled more with the amount of work required. In some cases, the time required to complete the academic assignment was perceived to impact negatively on other elements of the programme.

Across both cohorts, trainees stated that they did not always get timely feedback on drafts of their assignments. This slowed down their progress and added to their stress levels. For a few this meant that they experienced more of a bottle neck of tasks to attend to in the final months of the programme.

A handful of trainees across both the cohorts remained sceptical about the value of the academic work, suggesting that it did not add enough to the new to role to justify its inclusion on an accelerated programme. These trainees said that they would have prioritised the scoping and necessary competencies over the ability to write an academic assignment. A few said they would have preferred an exam or to have done the academic assignment after completing the other requirements. There would be value in exploring with trainees in the second year of the evaluation whether views about the value of the academic assignment shifted and became more positive over time.

**Assessment day**

For Cohorts 1 and 2 the assessment day consisted of two activities:

- An Objective Structured Clinical Examination (OSCE) where trainees were asked to demonstrate their confidence and competence in the performance of clinical skills by attending to a patient who was played by an actor. The assessment tested skills including patient communication and getting consent and their ability to manage patient safety issues.

- Delivery of a short clinical presentation on a topic of their choice, which could be prepared and delivered by pairs of trainees.

For Cohort 3 and future cohorts, the assessment day will only consist of an OSCE. Trainees are still required to deliver a presentation but this is now a formative learning requirement and will not be assessed. Presentations can be delivered by trainees to their
colleagues at their trusts. Faculty members noted that the presentation was taken out of the assessment in order to reduce the bottle neck of activities and preparation that was required in the closing weeks of the programme in order to ease workloads and stress levels.

Faculty members emphasised that while the presentation is no longer part of the assessment day, building the skills and confidence to do this was still seen as important to gain during the life of the programme.

What worked well?

Trainees were positive about the combination of the presentation and the OSCE noting they felt like this was an appropriate and proportionate combination of assessment tasks.

Reflecting on the OSCE, trainees liked the fact that as a form of assessment it was familiar and did not require significant amounts of preparation.

Reflecting on the clinical presentation, trainees said that exploring a chosen topic in depth and preparing the presentation had been a beneficial learning experience which had helped them to “crystallise” their own learning around the chosen topic. Many liked the fact that the presentations covered topics which had direct relevance to their day-to-day role and practice, rather than covering more academic and abstract content.

Many reported feeling very nervous in the run up to and on the day of the assessment. Trainees appreciated that those leading the assessment had tried to make the trainees feel as relaxed as possible.

Many trainees reported that they got lots of value from watching the other presentations, particularly because trainees came from a range of backgrounds and drew on different forms of specialist knowledge. Attending other trainees’ presentations helped them to fill in knowledge gaps and build on what they already knew.

“The presentations on sedation and celiac were really interesting. Even the presentation about lower GIs was useful - I wasn’t training in this modality but I will need this in the future.” [Cohort 1 trainee]

For this reason trainees requested that when they became available, each cohort should be given access to the full set of presentations, as this would be a valuable additional learning resource.

Trainees tended to be positive about the experience of having to prepare and deliver a verbal presentation as part of the assessment. Several noted that the skills associated with presenting back to a group were unfamiliar to them, but they would become more important as they moved into a more senior role.
"I think the presentation part was a new experience for me. Going forward part of my role is to provide teaching for more junior colleagues and I hadn’t really done anything like that. Having that experience of speaking in front of people and thinking about ways of presenting... this has provided a foundation for me to build on.”

[Cohort 1 trainee]

What could be improved?

Some trainees said that following the assessment day, it would have been good to have had a further day or session with the Faculty to explore the academic assignment as many still had outstanding questions and issues relating to the academic assignment and other elements. One trainee suggested making the assessment day one of a two-day block, with support being provided on the second day.

“They should have included a second day – that would be a chance to see how everyone is getting on, whereas after the assessment it felt like there was no closure – we never saw the Faculty again, it would be nice to have a chance to catch-up.” [Cohort 1 trainee]

One trainee noted that some of elements of the procedures being assessed during the OSCE (e.g. taking consent) were specific to that hospital and were not what trainees (who had trained at other hospitals) were used to. It would be helpful to highlight any of these local variations to trainees in advance. With this in mind, there would be value in the Faculty highlighting any trust or hospital specific protocols in advance of the OSCE, which trainees could be unfamiliar with.

Additionally, some trainees wanted to receive feedback on how they had performed more quickly, as was a long wait to find out how they had done and receive their certificate.
4. Further improvements and reflections on sustainability

4.1 Role of supervisors and mentors during the programme

A small number of supervisors and mentors reported that they had to invest significant amounts of time and effort during the programme to ensure that their trainees maintained good progress. In a few instances, it was reported they had done this because they wanted to see both their trainee and the wider pilot succeed. It is unclear whether this level of investment will be sustained in future cohorts.

Going forward, it will be important to ensure that the demands placed on mentors and supervisors is broadly in line with what they sign up to in the Learning Agreement. This can be supported by continuing to carefully assess the needs of different trainees from the outset and by ensuring that there is an effective recruitment and selection process that is able to select trainees whose support needs do not exceed the available time and resource.

4.2 Programme management arrangements

Many stakeholders felt that the success of the pilot programme had been supported by close management and oversight from the programme leads and Endoscopy Working Group. It was felt that significantly reducing the level of resource for this in the future would be a risk to delivery.

While some elements of programme management are likely to become less resource intensive as the programme achieves a “steady state”, programme stakeholders felt that it would be important to maintain a reasonable level of capacity at this level, to ensure that they can continue to provide one-to-one support where this is needed. The resources required to do this will likely be significant if future cohorts on the programme are larger.

There was a view that effectively managing larger cohorts can be supported by continuing to refine the design and content of the course, so that the volume of questions and support needs of trainees is manageable.

In the national rollout phase, programme stakeholders reported that it is possible for there to be multiple universities hosting and delivering the NME programme and multiple HEE teams overseeing the programme. If this is to be the case, stakeholders believe it would be important to maintain national standards associated with course and to minimise variations in how the programme is delivered to avoid any negative impacts on outcomes.
4.3 Recruiting appropriate trainees

Early in the programme, a stakeholder identified the risk that the first few cohorts might be comprised of the "cream of the crop", in terms of their skills, experience and institutional contexts. Over the longer term, it might prove more difficult to continue to secure applicants of the same standard, and so there is a risk that future cohorts might not achieve the same success rates.

To avoid this risk and encourage a more diverse workforce who can bring a greater range of skills, it will be important to ensure that the awareness and the positive reputation of the NME programme continues to grow amongst the target audiences. Several stakeholders emphasised the importance of encouraging applicants from non-nursing and non-endoscopy backgrounds to consider taking part (e.g. surgical practitioners). Evaluation evidence suggests that trainees from non-nursing and non-endoscopy backgrounds have been able to make good progress on the NME programme and have brought additional strengths and interests.

Increasing the pool of relevant applicants could also be supported by establishing whether it is possible to reduce the threshold scores at the selection day, so that greater numbers are able to secure a place on the programme. It is not possible to draw any conclusions from an analysis of Cohorts 1 and 2 since only a very small number of trainees achieved lower scores during the selection process (6 out of 40).

4.4 Continuing professional development

The great majority of Cohort 1 trainees reported that following completion of the programme their roles have changed significantly and that their colleagues have continued to invest time and resources to help them to settle into their new roles and achieve full independence. Many are already in the process of setting further training and development goals, including training in another modality and in relevant therapeutics. It will be important to establish formal development plans and support structures for beyond the training programme. This should be discussed between trainees and their trusts early in the programme so that trainees can feel confident about their future role.

Several supervisors and mentors emphasised the importance of ensuring that NMEs continue to learn and develop in the role. If they do not do this, it was suggested that there is a risk that the role could become repetitive and less fulfilling, and this could impact on workforce retention.

To fully understand the impact of the programme, it will be crucial to monitor the career paths and outcomes achieved by two cohorts who completed the NME programme as is planned in the ongoing evaluation of trainees planned for 2017.
5. Conclusions and next steps

Overall, the evaluation evidence gathered to date suggests that the NME programme has achieved ‘proof of concept’.

### Recruitment and completion rates

The success of this pilot has been underpinned by a rigorous recruitment process which was able to secure highly motivated and appropriate trainees, whose trusts have demonstrated a commitment to supporting them both during and after the programme.

Of the 40 trainees who commenced the programme 31 have completed within the 7-month accelerated time-frame and have been certified as NMEs. This equates to an overall completion rate of 78% (86% for cohort 1 and 73% for cohort 2).

### Programme design

There is consistent feedback that the combination and balance of learning activities and requirements associated with the programme had successfully prepared them for the role of NME. Participation in the programme has given trainees the necessary technical skills for the role and a strong foundation in becoming competent and independent NMEs. However, trainees, supervisors and mentors were clear that they would require more time to become fully independent and to develop the non-technical elements, such as clinical decision making, after completing the programme.

### Patient feedback

Patients who had a procedure carried out by an NME were consistently positive about their overall experience when interviewed as part of the evaluation. Patients reported that trainees seemed confident and competent when undertaking the procedure. All reported feeling that the service provided by the trainee endoscopist and the wider team was safe and felt they had been well looked after and helped to feel comfortable throughout the process. The feedback provided by patients highlights the trainee NME’s ability to provide compassionate care.

### Governance arrangements

Stakeholders expressed satisfaction with the governance arrangements for the NME programme, praising the commitment, size and composition of the Endoscopy Working Group. There is also clear evidence that the team overseeing and delivering the programme have been ready to listen, reflect and modify the pilot programme in the face of feedback.

### Impact on medical trainees

Evidence from the evaluation and JETs e-portfolio indicates that the NME programme has not had a negative impact on medical trainees when it comes to access to training lists.
Next steps

The evaluation has identified a number of considerations which will support the sustainability and continued success of the programme:

- Ensuring that there is clarity and sign-up from supervisors and mentors about the time and resource commitments associated with participating in the programme.
- Ensuring that the programme can maintain effective management and oversight arrangements, especially if the size of future cohorts is increased when national roll-out takes place.
- Ensuring that the programme is effectively promoted and that the recruitment approaches are able to maintain a steady supply of suitable candidates, including those from non-nursing and non-endoscopy backgrounds.
- Ensuring that the newly qualified NMEs continue to build their skills and have viable and fulfilling career paths, to support workforce retention.

The evaluation will continue over 2017 and will explore and capture evidence of impact and details of the critical success factors and challenges experienced by participants from Cohorts 1 and 2. The evaluation team will focus on capturing:

- Impacts of the programme on individual trainees who have completed the programme.
- Impacts of the programme on participating trusts and endoscopy units.
- Formative and process learning which identifies the critical success factors for participating in the training, at trust, unit and individual levels.
Acknowledgements

Thanks to all those who participated in the evaluation. To protect anonymity, we have not named participants, but they are listed by group below.

- Faculty members: those involved in leading the design, delivery and oversight of the programme.
- Supervisors and mentors within participating trusts.
- Trainees participating in the programme and those who applied and were observed on their selection day.
- Evaluation steering group members.
- The hospital colleagues that allowed us to observe elements of the programme, which includes Bedford Hospital, Hammersmith Hospital, St Thomas’ Hospital, St George’s Hospital, and University College Hospital.
## Appendix 1 – Programme logic model

### Long term outcomes

- **Trainees**
  - Trainees achieve employment & career progression
  - Trainees can work independently and become confident in clinical decision making

- **Patients**
  - Patients benefit from improvements in standards of diagnostics & quality of care

- **Trusts**
  - NME role frees up capacity of medics
  - Trust benefits from cost efficiencies of expanded non medical workforce

- **Wider health system**
  - Greater standardisation of endoscopy training in England
  - Contribution to meeting bowel scope screening programme targets and NICE two week waiting times

### Intermediate outcomes

- **Trainees**
  - Trainees achieve mix of practical and technical skills in line with non-accelerated trainees
  - Trainees have increased confidence in their practice

- **Patients**
  - Patients benefit from a reduction in waiting times

- **Trusts**
  - NME able to work independently & meet agreed KPIs
  - Trusts benefit from increased capacity and flexibility of endoscopist workforce

### Outputs

- **Trainees recruited, mentors & supervisors allocated**
- **200 procedures & DOPS completed per trainee**
- **Portfolio and SLATE e levels completed**
- **Trainees achieve JAG certification & academic accreditation**
- **NME programme resources & training materials**

### Activities

- **Programme Management**
  - Management & administration from HEE
  - JAG support and administration
  - Programme leads & medical faculty

- **Recruitment and preparation**
  - Promoting & advertising the opportunity
  - Selection days
  - Trust selection process
  - Learner Agreement

- **Support for trainees**
  - Local support from supervisors, mentors & wider colleagues at the trust during and after 6 month programme
  - Support from NME programme faculty
  - Academic support

- **Training**
  - Clinical practical skills
  - Completion of portfolio
  - Academic work
  - Completion of SLATE e learning
  - JAG Basic Skills course & study days
  - Clinical supervision & personal development

### Inputs

- **Funding from HEE**
- **Programme design**
- **Faculty staff costs**
- **Trust release of trainees and supervisors/mentors capacity**
Appendix 2 – Evaluation methodology

A set of scoping interviews

We initially carried out a total of nine scoping telephone interviews with key people involved in designing and overseeing the training programme, to explore the following issues:

- Strategic intentions underpinning the programme
- Experiences and progress
- Any emerging learning to date: challenges, enablers
- Expected critical contextual factors
- Reflections on anticipated uptake and impacts

An evaluation framework and logic model

Building on what we had learnt during the scoping interviews and drawing on programme documentation we developed a logic model which served as a visual representation of the inputs, outputs, interim and longer-term outcomes of the training programme (see Appendix 2). The logic model helped to inform the design of evaluation fieldwork tools and to explore how programme activities contributed to producing outcomes.

A briefing sheet

We produced a one-page summary which was sent to all trainees at the beginning of the programme. It clearly laid out the purpose of the research, the contributions required of the different audience groups and expectations, including the time required, anonymity of the reporting, and the handling of sensitive data.

Interviews with trainees and supervisors and mentors

To capture data from those involved in the programme, we conducted a combination of telephone and face-to-face interviews with each of the trainees from the two cohorts. Interviews were also carried out with trainee’s supervisors and mentors, as well as the programme leads that led on the delivery of the programme.

Interviews were supported by detailed topic guides and permission was sought to digitally record each interview to capture the full detail of what participants said. The interviews aimed to capture reflections of, learning about, and evidence of impacts emerging as a result of the pilot programme. Interviews enabled us to explore any unanticipated or negative impacts, as well as context and the counterfactual.

Wider evidence review and interview with experts

As part of the evaluation, OPM have undertaken a literature review to provide a consolidated evidence base on training outcomes and process learning that can be used to inform the evaluation of the pilot. The literature review has been conducted using the Rapid Evidence Assessment approach, an approach that provides a more structured and rigorous search and quality assessment of the evidence than a literature review but is not as exhaustive as a
systematic review (Government Social Research, 2013). The literature review had three aims:

1. To consolidate evidence on outcomes of NMEs compared to medical endoscopists (MEs)
2. To identify international NME training programmes and capture process learning around programme design and training outcomes
3. To explore learning from accelerated training programmes, both ME and non-medical training programmes from other fields outside of endoscopy

As well as reviewing evidence we also undertook a small number of interviews with experts in order to plug gaps in the evidence base.

The literature review will be published as a standalone report in autumn.

Patient interviews

We carried out a series of short (10-15 minute) face-to-face interviews with patients who had received an endoscopy from a Cohort 1 or 2 NME trainee. The aim of the interview was to capture feedback about whether they felt that the service had been safe and effective.

The demographic and procedure details of the 8 patient interviews are summarised below.

- A mix of male and female patients
- A mix of White British, White Other and Asian British
- A range of ages
- A mix of modalities
- Patients interviewed were from Bedford Hospital; UCLH; and Hammersmith Hospital;
- 4 NME trainees delivered the procedures

The process of interviewing patient involved the following steps:

- Once patients had been consented by the NME trainee to have the procedure carried out an OPM researcher then spent around 5 minutes explaining the research to the patient and then asked them if they would like to take part.
- Patients were informed that taking part in the research was entirely optional. Informed consent was supported by a one page briefing sheet, a chance to ask follow up questions and a consent form which each participating patient had to sign.
- The use of a structured topic guide to capture feedback data in a consistent and thorough manner.
- The interview took place in a private room following the procedure, at a point when they felt comfortable and able to do so.

Patients who were sedated during their procedure were not asked to take part in an interview.
Follow-up survey and interviews with Cohort 1

We conducted online surveys with trainees, supervisors and mentors approximately three months after completion of the programme, to understand the following:

- Thoughts on the end stages of programme and experience reflections on submitting assignment and portfolio and completing the final assessments;
- Experience of resubmitting work or submitting elements outside of anticipated timescale (if relevant);
- Trainees’ career progress following completion of programme;
- Numbers of procedures trainees are carrying out each week and how this compares to what was originally expected; whether trainees continue to use JETS;
- Thoughts on trainees’ fitness to practice and ability to work independently;
- Any wider roles and responsibilities they are undertaking alongside endoscopy lists, e.g. attending multi-disciplinary team meetings, contributing to audits, training others;
- Reflections on type and adequacy of support and supervision arrangements for trainees following completion of programme (both formal and informal);
- The extent to which the different elements of the NME training programme prepared trainees for practice post-pilot;
- Identifying key enablers and barriers to settling into their new role;
- Further training objectives and career goals identified or emerging;
- Impacts on the units / wards / trusts as a whole;
- Thoughts on how NME training programme could be further improved.

Having run the online surveys, we conducted four pairs of interviews with a trainee and their mentor or supervisor. The interviews used pre-designed topic guides and were conducted by telephone. The interviews aimed to capture more detailed data about the above topics.

We used the online survey data to select the four trainees. In selecting our sample we aimed to achieve a mix in terms of role and background, number of lists undertaken each week, and extent of challenges encountered when trying to settle into the role.

Oversight and governance of the evaluation

An evaluation steering group was formed to provide advice and oversight for the evaluation. The steering group is comprised of representatives from the HEE including the NME programme manager and there is clinical representation including a Nurse Consultant in Gastroenterology and two Consultant Gastroenterologists. The evaluation steering group’s role is captured in a Terms of Reference:

- Reviewing the evaluation project plan, timetable and activities and monitoring progress.
• Contributing knowledge and expertise to the development and delivery of the evaluation such as the format of interim and final reports

• Providing, identifying or facilitating access to information required for the evaluation

• Agreeing and taking actions back to their respective organisations as required

• Agreeing arrangements for sharing and publicising the outcomes of the evaluation on an on-going basis including to other boards and organisations

• Reviewing, contributing to and signing off interim and final reports

• Reviewing the findings of the project and agreeing on required collective and individual actions including reflecting these in future commissioning activity
## Appendix 3 – Pass / completion of programme elements

<table>
<thead>
<tr>
<th></th>
<th>All trainees (n=36)</th>
<th>Cohort 1 (n=13)</th>
<th>Cohort 2 (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>200 procedures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed in 6 months</td>
<td>29 (81%)</td>
<td>12 (92%)</td>
<td>17 (74%)</td>
</tr>
<tr>
<td>Completed in &gt;6 months</td>
<td>7 (19%)</td>
<td>1 (8%)</td>
<td>6 (26%)</td>
</tr>
<tr>
<td><strong>SLATE</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Completed</td>
<td>36 (100%)</td>
<td>13 (100%)</td>
<td>23 (100%)</td>
</tr>
<tr>
<td>Average score</td>
<td>87.6/100</td>
<td>86.7/100</td>
<td>88.2/100</td>
</tr>
<tr>
<td><strong>NME Portfolio</strong></td>
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<td></td>
</tr>
<tr>
<td>Pass</td>
<td>31 (86%)</td>
<td>12 (92%)</td>
<td>19 (83%)</td>
</tr>
<tr>
<td>Not submitted</td>
<td>5 (14%)</td>
<td>1 (8%)</td>
<td>4 (17%)</td>
</tr>
<tr>
<td><strong>Academic Accreditation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pass</td>
<td>32 (89%)</td>
<td>13 (100%)</td>
<td>19 (83%)</td>
</tr>
<tr>
<td>Not submitted</td>
<td>4 (11%)</td>
<td>0 (0%)</td>
<td>4 (17%)</td>
</tr>
<tr>
<td><strong>Assessment Day (OSCE)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pass (1st attempt)</td>
<td>32 (89%)</td>
<td>11 (85%)</td>
<td>21 (91%)</td>
</tr>
<tr>
<td>Pass (2nd attempt)</td>
<td>4 (11%)</td>
<td>2 (15%)</td>
<td>2 (9%)</td>
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<tr>
<td><strong>Assessment Day (Presentation)</strong></td>
<td></td>
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<tr>
<td>Pass</td>
<td>36 (100%)</td>
<td>13 (100%)</td>
<td>23 (100%)</td>
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<td><strong>JAG Certification</strong></td>
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<tr>
<td>Certified</td>
<td>31 (86%)</td>
<td>12 (92%)</td>
<td>19 (83%)</td>
</tr>
<tr>
<td>Not certified</td>
<td>5 (14%)</td>
<td>1 (8%)</td>
<td>4 (17%)</td>
</tr>
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</table>
## Appendix 4 - Summary of the evaluation recommendations and actions taken by HEE

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>First interim report</td>
<td></td>
</tr>
<tr>
<td>Consider approaches to recruitment that specifically target applicants from non-nursing and non-endoscopy backgrounds, to support the scalability of the programme and ensure that staff with different strengths and backgrounds have a chance to apply.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Future trainees would benefit from clear and comprehensive guidance about what is expected when it comes to the academic assignment.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Trainees would benefit from more guidance on whether and how they should be practicing to scope and undertaking procedures prior to the induction day.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Consider increasing the number of taught days from four to six so that the days can cover the topics and content at a more manageable pace and in greater depth.</td>
<td>Actioned</td>
</tr>
<tr>
<td>At the Induction Day, build in more formal and informal icebreaking opportunities which help trainees to get to know one another.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Ensure that at the Induction Day trainees are able to easily distinguish between who is a trainee and who is a supervisor/mentor, to further support early relationship building.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Ensure that, where possible, future trainees are able to attend the Basic Skills Course where they have completed between 30 and 50 procedures so that they get the most value from it.</td>
<td>Actioned, subject to the timing and availability of Basic Skills courses in relation to the NME training.</td>
</tr>
<tr>
<td>Ensure that, as far as possible, trainees attending a Basic Skills Course have a similar level of skills and confidence.</td>
<td>Actioned</td>
</tr>
</tbody>
</table>
Future versions of the SLATE e-learning should consider rotating different sets of questions when different levels are repeated. | Incorporated into the next phase development plans
---|---
Future programmes should incorporate guidance and top tips from Cohort 1 trainees on how to manage the different requirements of the course. | Actioned
Review the different strands of the programme to identify unnecessary points of duplication and streamline the requirements. | Actioned

**Second interim report**

Ensure that the recruiting timeline gives trusts sufficient time to identify and put forward suitable NME applicants. | Actioned
Ensure that there is clear guidance about the recruitment interview and the training programme, including the expectations around knowledge of the trust support arrangements, so that applicants can adequately prepare. | Actioned
HEE to provide more advanced warning for trusts (ideally, at least six weeks), acknowledging the time needed to accommodate NME trainees’ needs, including appropriate access to lists. | Actioned
Consider holding a shorter induction session in the first half of the morning of the programme and use the rest of the day to deliver taught sessions. This recommendation assumes that trainees will be provided with clear information and guidance prior to the start of the programme. | Actioned
It would be worth exploring whether past trainees could meet new cohorts to talk about experiences and learning tips. | Actioned
If future taught days are delivered as two-day blocks, ensure that these are adequately spaced out across the timeline of the programme, so that trainees do not have long stretches where there

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Released
Final

Page 83
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>There is no face-to-face support from the Faculty and no opportunities to meet with other trainees.</td>
<td></td>
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<tr>
<td>Consider the scope for expanding the time spent on core medical content (e.g. patient pathways) when designing and organising the taught days.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Ensure timely response from academic tutors regarding feedback. A solution could be to set formal deadlines, for both trainees and tutors, to send drafts/feedback to set realistic expectations for both parties.</td>
<td>Actioned</td>
</tr>
<tr>
<td>Provide guidance and clarity regarding the portfolio requirements earlier on in the programme</td>
<td>Actioned</td>
</tr>
<tr>
<td>Wherever possible avoid programme milestones (e.g. assignment and portfolio deadlines) falling over summer months.</td>
<td>Actioned</td>
</tr>
<tr>
<td>As recommended in the first interim report, add a larger library of questions / rotate sets of questions in future version of SLATE, to enhance the learning value.</td>
<td>Incorporated into the next phase development plans</td>
</tr>
<tr>
<td>HEE to consider how it can support/encourage trusts to design and implement a formal process for developing training and work plans beyond the six-month programme timeline.</td>
<td>Review after OPM’s second report in December 2017</td>
</tr>
</tbody>
</table>
Appendix 5 – Oversight and delivery of the programme

The following groups provided management and oversight of the NME training programme and the evaluation:

- **The Faculty**: Delivered the NME training programme e.g. leading and delivering taught days, providing academic feedback and advice to trainees, leading the assessment day

- **The Working Group**: Oversaw and managed the NME training programme e.g. leading on the recruitment of trainees, organising the programme timetable, overseeing trainees’ progress and troubleshooting.

- **Evaluation Steering Group**: Provided advice and oversight for the evaluation.

The table below outlines the membership of these groups.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Working Group</th>
<th>Evaluation Steering group</th>
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<tbody>
<tr>
<td>Harriet Watson (Guys and St. Thomas’ NHS Foundation Trust)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rachael Follows (Hull and East Yorkshire Hospitals NHS Trust)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Jenny McPhillips (Liverpool John Moores University)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Paul O’Toole (Liverpool John Moores University)</td>
<td>✓</td>
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</tr>
<tr>
<td>Jenny McPhillips (Liverpool John Moores University)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Dr Wladzia Czuber-Dochan (Kings College London)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Vinoda Coopamah (Kings College London)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Fiona Hibbert (St Thomas)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
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<tr>
<td>----------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Sue Baker (Liverpool John Moores University)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Raphael Broughton (JAG)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Viktoria Nemeth (JAG)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Lauren Roberts then Anna Beckett (OPM)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Tim Vanson (OPM)</td>
<td>✓</td>
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<tr>
<td>Myles Wilson (OPM)</td>
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<tr>
<td>Donna Sidonio (HEE)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Jo Stanford (HEE)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Adam Haycock (St Marks Hospital)</td>
<td>✓</td>
<td></td>
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<tr>
<td>Lynn Hall (HEE)</td>
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<tr>
<td>Edward Seward (University College Hospital)</td>
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<tr>
<td>Helen Griffiths (Wye Valley NHS Trust)</td>
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