CEED Executive Summary (Final Report *V6.4*)

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Report Title	Clinical Educators in Emergency Departments: FINAL Report draft v6.4
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FOI Status	Disclosable under FOI
Contributing parties	This report was commissioned by Health Education England and authored by the combined project evaluation team: University of Aston Academic Practice Unit with DSA Intelligence Ltd, and the Royal College of Emergency Medicine (RCEM).
Purpose	To identify the benefits and / or disbenefits of clinical educators in emergency departments (evaluation of a pilot intervention - CEED).
Recommendations	1. NHS Emergency Departments should appoint Clinical Educators to support the development and training of their multidisciplinary ED clinical staff. 2. Clinical educators should be given sufficient ring-fenced time to fulfil their role. This will need local consideration but a minimum of eight hours per week is likely to be needed to realise the benefits identified during the CEED project. Within the study, sites typically appointed clinical educators to one or two PAs per week. PAs are 4-hour sessions. 3. Consideration should be given to clinical educators forming part of a multidisciplinary training team. This team may usefully include Advanced Clinical Practitioners and non-consultant medical staff (including trainees) who can demonstrate suitable knowledge and teaching skills. 4. Clinical educators should be equipped and encouraged to provide educational support to all clinical staff of the Emergency Department from all professions. This may be focused on trainees and learners. However, benefits to fully qualified staff are also achievable. 5. Regional HEE teams in collaboration with multi-professional Deaneries and Schools of Emergency Medicine should support ED teams in enabling the release of time and integration of the clinical educator role.
Report Summary	This report is designed to inform the study commissioners - Health Education England (HEE) - of the recommendations and findings from the evaluation of the Clinical Educator in Emergency Departments (CEED) pilot project. Findings in this report are largely qualitative in nature and categorical in presentation, based on participant opinion rather than identifiable changes in appropriate metrics. ➢ **Findings and evidence limitations** are described in more detail below. ➢ The extended evidence base is provided in Appendix 7 (details of CEED investigations)

- Embedded Document 1 contains analysis of GMC trainee surveys (2018 and 2019). A summary of the phases of the study is provided in Appendix 8.

Outcomes

The short summary findings are that clinical educators as provided within the pilot realise the following benefits:

- Quality of patient care improved.
- Clinical decision-making by staff improved.
- Staff morale improved.
- ED staff recruitment and retention improved.
- Patient safety improved.
- Wellbeing at work improved.
- Competence and confidence of clinical staff improved.

In the opinion of all stakeholder groups (learners, clinical educators and managers), patient flow through the emergency department is not adversely affected by maintaining the clinical educator role – in particular during crisis and peak demand periods (the pilot delivery window included three periods of "winter pressures" and one global pandemic (COVID-19).

As part of the EOR methodology used in this evaluation, recommendations of over 60 'expert' participants (professional staff/learners or managers with ED experience) were secured through semi-structured interviews and focus groups (Appendix 7). These recommendations formed the basis of large-scale surveys to identify the opinions and recommendations of the widest possible cross-section of ED staff who experienced, delivered or managed clinical educator sessions.

The evaluation team considered recommendations provided by participants across all geographical areas and demographic types available (50 ED sites), compared these with the evidence obtained and analysed outcomes with frontline emergency department staff.

The collection and evaluation of bespoke metrics to quantify the benefits of clinical educators is beyond the scope of this project. However, data available in the public domain was analysed to identify significant differences between CEED study sites and a representative control group of similar sites. Based on our analysis of the 2018 and 2019 GMC trainee data and 11 *a priori* selected questions from these surveys, CEED sites showed:

- Significant improvement in 1 (controls 'significant deterioration');
- Significant improvement in 3 (controls 'no change');
- No change in 5 (controls 'significant deterioration'); and
- 2 no significant change (in either CEED or controls).

	This work is described in more detail in Embedded Document 1. Attribution of the effect of clinical educators on the GMC trainee survey results is not clear, but these results may provide assurance that clinical educators are beneficial. The NIHR *Portfolio* CEED study confirmed the recruitment of 709 participants who provided both direct (interviews and focus groups) and indirect (bespoke surveys and activity data) evidence from 64 different sites in England. NIHR confirmed the successful completion of the study on 8th December 2020, indicating that the recruitment and processes followed are suitable to answer the defined research questions.
Conclusions and Next Steps	In conclusion, future provision of clinical educators in Emergency Departments is strongly supported. The evaluation team conclude that the introduction and provision of clinical educators in Emergency Departments is beneficial. There is evidence that the CE role lead not only to the delivery of the expected shopfloor teaching methods but was also associated with innovative ways of teaching and training – in particular during winter pressures and the COVID-19 waves 1 and 2 period (2020). Some of these are described in Embedded Document 2. This is an important evidence base to demonstrate the value of maintaining education provision on the shop floor during peak demand periods. **Next Steps:** NHS Service Providers with Emergency Departments (all types) should consider the appointment and development of clinical educators as part of a multidisciplinary training team, to support multi-disciplinary staff in all clinical professions. To support this recommendation the evaluation team have produced: - A Handbook to support the development of staff as clinical educators. - A short service development strategy based on *GROW* principals (Goal – Reality – Options – Way-forward) (Embedded Document 3). This final report is intended to demonstrate to NHS service providers that the Clinical Educator role has sufficient workforce impact, service benefit and return-on-investment to justify future funding and inclusion in employment contracts / workforce planning. For the duration of the CEED project, HEE provided funding to support 50% of the clinical educator time for those participating in this pilot, with equal match-funding from employers. It was made clear to trusts that this was a temporary measure from the outset. The resource implication to the trust then is the cost of supporting the role in entirety.

Key Messages	There is a strong body of opinion, consistent across all stakeholder groups and geographical areas that clinical educators provide important benefits to Emergency Departments and the services they provide. This is evidenced by a range of qualitative methods including semi-structured interviews, focus groups, multiple national meetings and two large national surveys. Independent comparative evidence from the GMC trainee surveys in 2018 and 2019 support this conclusion.
Strategic Objective Links	In 2012 RCEM highlighted a number of concerns to the General Medical Council [GMC] related to emergency medicine training. The GMC in turn published a review of training in seven emergency medicine departments where they highlighted concerns around: ➢ Understaffing as evidenced by increases in unfilled training posts; ➢ The perceived undesirability of the specialty due to the high and intense workload; ➢ An increase in unsatisfactory outcomes in Annual Review of Competence Progression [ARCP]; ➢ The amount and quality of supervision received by Trainees. These issues were further highlighted and evidenced in the following sources: ➢ Previous assessments of training by EM trainees have indicated that training could be improved in a number of EDs (GMC NTS 2017 & 2018). ➢ Trainees reported disillusionment with the specialty of EM with high rates of burnout reported, concerns over intensity of the workload, and the quality of training. (GMC National Training Survey [NTS] and Emergency Medicine Training Association [EMTA] surveys). ➢ Recruitment has previously been reported as a problem but also retention with trainees leaving EM typically after core training or remaining in EM but pursing their career in another country. (RCEM data 2017/18). ➢ Anecdotal evidence that staff shortages and the pressure of clinical work may have been impacting on the ability of educators to deliver training. In October 2017, RCEM, HEE, NHS England and NHS Improvement published 'Securing the Future Workforce for Emergency Departments in England' to ensure a sustainable workforce capable of meeting the growing demands of the future. The publication refers to the development of a clinical educator strategy to support junior clinical staff working in (ED) and reduce attrition to the workforce. This was to be achieved by offering increased time for education with senior clinicians; the absence of which can often be exacerbated by clinical pressures in the ED, lack of teaching infrastructure, small clinician bases and workforce gaps. The Clinical Educator strategy looked to address these issues and undertake a pilot scheme that focused on providing dedicated training time within the ED, within up to 60 of the lowest performing Trusts according to the GMC training survey and local knowledge, in England.

Identified risks / risk management actions	➢ Sustainability: Especially where clinical educators are employed beyond their normal working time - which is likely to be the most frequent arrangement for such a role. ➢ Modelling: For the duration of this pilot, CEs are consultant doctors who hold either FRCEM or MRCPCH qualifications. In general, expanding the CE role to others, including the use of non-consultant medical staff and senior non-medical clinical staff to support the clinical educator role (expanding the CE workforce), is supported by the study participants. However, this needs further local consideration and should be supported by a framework to ensure the educators can meet the needs of learners. ➢ Operational arrangements: Service delivery, multidisciplinary engagement, monitoring and governance require Trust level consideration. ➢ Expansion: Consideration should be given to using the CEED training and evaluation models outside of emergency medicine, which may include acute medicine, general practice, paediatrics etc.

Clinical Educators in Emergency Departments [CEED] study

FINAL report to Health Education England: V6.4

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Authors: CEED Evaluation Team

Glossary of terms:

- **ACP**: Advanced Clinical Practitioner
- **CBD**: Case Based Discussion
- **CE:** Clinical Educator (within this pilot these are consultant doctors in emergency medicine)
- **CEED**: Clinical Educators in Emergency Departments
- **CS:** Clinical supervisor, consultant in EM with day-to-day shop floor responsibility for supervision of all trainees
- **ECS:** Emergency Care Standard, commonly known as the '4 hour target' (95% of patients attending the ED should be admitted or discharged within 4 hours)
- **ED:** Emergency Department
- **EM**: Emergency Medicine
- **EOR**: Experiences, Opinions, Recommendations – the model used to evaluate the CE study
- **ES:** Educational supervisor - consultant in Emergency Medicine with responsibility for education and training for named trainees
- **ESLE:** Extended Supervised Learning Event
- **FRCEM:** Fellow of Royal College of Emergency Medicine
- **FOAM-**ED: Free Open Access Medical Education
- **FG:** Focus Group
- **GMC:** General Medical Council
- **GROW:** a model to support service development (Goal – Reality – Options – Way-forward)
- **HEE**: Health Education England
- **HRA:** Health Research Authority
- **IRAS:** Integrated Research Application System
- **MRCPCH:** Member of Royal College of Paediatrics and Child Health
- **NIHR:** National Institute for Health Research
- **PA:** Programmed Activity, a period of 4 hours (doctor time on duty)
- **PEM:** Paediatric Emergency Medicine consultant, of which some will be RCPCH rather than FRCEM holders.
- **PPE –** Personal protective equipment
- **RCEM:** Royal College of Emergency Medicine
- **SPA:** Supporting Professional Activities (time)
- **SSI:** Semi-structured Interview
- **WPBA:** Workplace Based Assessments

Report Purpose: This report is designed to inform Health Education England (HEE) (commissioning authority) of findings and recommendations from the evaluation of the Clinical Educator in Emergency Departments (CEED) pilot project. This report draws evidence from a wide range of participants, from all three stakeholder groups (clinical educators, learners and EM managers), geographical areas and settings. This has been undertaken through semi-structured interviews, focus group and online surveys. The evidence presented in this report is predominately expert opinion and expressed within the limitations of the study design – an EOR (experiences, opinions and recommendations) study to evaluate an in-progress service development. Quantitative data is explored from the 2018 and 2019 GMC trainee surveys. Details are provided in Embedded Document 1.

Overview

In October 2018, HEE working in partnership with RCEM identified a number of Emergency Departments that had difficulty delivering high quality training. These sites, it was contended, could benefit from dedicated training taking place within the department shop floor which could be delivered by Clinical Educators. It was proposed that the appointment of CEs - senior doctors in the speciality - would support the development of trainees and improve the retention and wellbeing of the ED multi-professional team. Funding was agreed in October 2018 and an initial 155 CEs appointed from 55 Trusts, with 2-5 Programmed Activities [PA] allocated per pilot site. It was made clear to sites from the outset that funding was to be used for sessions in addition to existing educational activity taking place in that NHS financial year – specifically noting that CE sessions were to be used for time in addition to existing SPA time.

Since the first (2019) interim report was published, further data and evidence was collected in accordance with the revised (peri-COVID-19) study plan:

- Second year activity data - records of educational activity by clinical educators (A41)
- Surveys of stakeholder groups in both phases 1 (A3) and 3 (A9) of the evaluation
- Semi-structured interviews (A7) with:
  - Learners (n=6),
  - Clinical Educators (type 1 sites n=6, type 2 sites n=13),
  - EM managers (n=3).
- Phase 3 focus group with Principal Investigators (A8).

Changes due to COVID-19:

During the COVID-19 pandemic, the study team agreed modifications to the evaluation plan:

- Extended semi-structured interviews with clinical educators at non-principal (type 2) sites (A7),
- Remote single focus group with study principal investigators (A8).

[1] The designation A1 to A9 signify the Activities scheduled within the approved evaluation protocol. See Appendix 8.

- Surveys were modified to include sections relating to the COVID-19 pandemic.

The issues relating to education in the Emergency Department as a consequence of the COVID-19 pandemic inevitably influenced the response of participants in the latter phases of the CEED study. Surveys provided for responses in relation to both pre-covid and peri-covid periods. However, the main study aim of identifying the benefits and/or dis-benefits of clinical educators remained the focus throughout.
The consequence of the national pandemic on the educational needs and support of emergency medicine clinical staff will be explored in more detail within the linked HEE *EnED* research study (*Education in Emergency Departments*), which is due to report in early 2021. *EnED* evolved from research needs identified during CEED in April 2020.

Ethics Approval

The CEED evaluation is an NIHR *Portfolio* study and undertaken in accordance with an approved protocol. Modifications to the study were approved by the research sponsor (Aston University), and amendments approved by the Health Research Authority (HRA). Within phases two and three of the study, two non-substantial amendments and one substantial amendment were approved and the protocol modified accordingly. Formal data capture has been supplemented by open forum discussions using remote access (*Zoom*), which were in part a replacement for the original planned national conference. The approach has been to use co-design methods in a live environment.

Hierarchy of evidence: Each of the data capture methods used in the CEED project have been carefully chosen by the evaluation team to support the aims of the project. Each are important in understanding and exploring the benefits (or otherwise) of clinical educators to multi-professional learners within emergency departments teams. The evaluation team take the view that the surveys provide the most robust direct evidence within this study. Findings from pre-survey work were used to inform the design of the surveys. Further exploration of the issues relating to clinical educators through the use of semi-structured interviews and focus group are invaluable in supporting the understanding of the survey findings.

Summary of themes and findings

The experiences, opinions and recommendations (EOR) of three key stakeholder groups were obtained using a series of surveys, semi-structured interviews and focus groups. The three key stakeholder groups are:

- **Learners** (both medical trainees and non-medical trainees),
- **Clinical Educators** (all consultants in emergency medicine or equivalent), and
- **Emergency Medicine managers** (including clinical directors and departmental operational managers or equivalent).

Themes for specific investigation were identified by the evaluation team from the earlier phases of the study. Data capture using the extended and approved protocol was closed on 11th September 2020. These findings are primarily based on the expert opinion of the study participants. Capture of bespoke metrics relating to the provision of clinical educators is beyond the scope of this evaluation. However, an examination of available quantitative data is described in Embedded Document 1 and provides a comparison between CEED sites and controls in respect of relevant questions present to medical trainees by the GMC before the CEED intervention (2018) and during CEED (2019).

Findings in this report are therefore largely qualitative in nature and categorical in presentation, based on participant opinion rather than identifiable changes in appropriate metrics.

Details of the evidence, including the number of participants in the varying data capture methods, are shown in Appendix 7 of this report.

1. Benefits of Clinical Educators

1.1 Quality of patient care:
Learners (n=180, 83% - 2.1.3 below) overwhelmingly report that the quality of care they provide to patients improved or significantly improved as a consequence of clinical educator support. Almost all clinical educators (n=105, 95.5%) responding to the final survey agree that patient care provided by learners in the Emergency Department (as a consequence of the clinical educator programme) improved or significantly improved.

1.2 Clinical decision-making by staff:
91% (n=30) of managers responding to the final survey stated that clinical decision-making by staff improved or significantly improved due to the clinical educator programme. SSI/FG participants confirm that patients are more efficiently managed after CE training sessions.

1.3 Staff morale:
81% (n=174, 2.1.4 below) of learners responding to the final survey stated that overall morale of staff has improved or significantly improved, as a consequence of the clinical educator programme. Learners valued the wider supporting role of CEs.

1.4 ED staff recruitment and retention:
A majority of learners (n=117, 54%, 2.1.5 below) and clinical educators (n=63, 57%) responding to the final survey indicate that ED staff recruitment and/or retention improved or significantly improved. SSI/FG participants stated that departments with CEs are considered attractive to staff. Approximately one in three survey respondents suggested that recruitment/retention of staff has not changed.

1.5 Patient safety:
There is overwhelming support from all three stakeholder groups that patient safety has improved or significantly improved as a consequence of clinical educators – Learners (n=177, 82%, 2.1.6 below), clinical educators (n=100, 91%) and managers (n=29, 88%).

1.6 Impact on wellbeing at work:

All three stakeholder groups expressed the clear opinion that wellbeing at work was improved or significantly improved by the clinical educator programme - Learners (n=152, 70%, 2.1.8 below), clinical educators (n=106, 96%) and managers (n=26, 79%).

1.7 Competence and confidence:
A large majority of learners (n=179, 83%, 2.1.15 below) believe that their competence and confidence (as clinicians) has improved due to the clinical educator programme. Similarly, a large majority of clinical educators (n=99, 90%) reported that staff clinical ability improved or significantly improved because of the CE programme. They also report that the effective management of more complex patients has been improved or significantly improved (n=98, 89%).

Future provision of clinical educators was strongly supported in SSIs/FG.

2. Impact on patient flow

In the final survey, all three stakeholder groups expressed the view that patient flow pre-COVID-19 was not adversely affected by the introduction of clinical educators (see 2.1.2 below, neutral or positive responses for learners (n=211, 97%), clinical educators (n=110, 100%), and managers (n=31, 94.5%). However, all three groups were ambivalent as to whether patient flow had improved or significantly improved, or not changed:

2.1 Learners:
6. 124 (57%) replied improved or significantly improved
7. 87 (40%) did not change.

2.2 Clinical educators:
- 58 (53%) replied did not change
- 52 (47%) improved or significantly improved.

2.3 Managers:
- 16 (49%) replied did not change
- 15 (45.5%) improved or significantly improved.

Comments made in SSIs/FG generally indicate that the provision of clinical educators supports patient flow, especially when future clinical management of patients are taken into consideration – with learners better able to manage future patients.

3. Frequency of adverse incident reporting – unchanged

All stakeholder groups report a range of opinions in relation to this issue (see 2.1.7 in Appendix 7 below). Significant numbers of respondents reply that they either do not know or there is no change.

4. Clinical Educator provision

81% (n=175) of learners would like the proportion of their training time with clinical educators to increase (see Appendix 7, 2.1.9). A small majority of learners (n=120, 56%) indicate that their Department had provided them with sufficient learning time to meet their needs.

Clinical educators are most frequently provided with one PA of time per week to fulfil their role. According to responses to the final survey there are approximately equal numbers of clinical educators who have taken on additional PAs compared with those that have absorbed their role within existing contractual arrangements. It is unclear whether the group of clinical educators who have taken on additional PAs can maintain this in the future. The risk of burnout by clinical educators was described in SSIs/FG discussions. Respondents commented that CEs enjoy the role, which was viewed as a benefit to staff retention. The optimal duration for clinical educators to provide their teaching role is not readily identifiable from participant discussions but is likely to be 8 hours per week per department, or more.

5. Activities of clinical educators

Learners and clinical educators strongly supported clinical educators providing shop-floor teaching and workplace-based assessments – see Appendix 7, 2.1.10.

In the final survey, 64% (n=70) of clinical educators did not believe educational work was transferred to them by colleagues, implying that other colleagues continued to provide their educational commitments.

A large majority of clinical educators (n=98, 89%) confirm that they provide a supporting role beyond (clinical) teaching, and in particular career progression advice and pastoral care of staff. 94% (n=31) of managers responding to the final survey support the role of clinical educators beyond clinical teaching. During SSIs non-medical learners expressed support for the clinical advice, guidance, and career advice provided by CEs.

6. Multi-professional education sessions

A large minority (n=100, 46%) of learners responding to the final survey report that they had participated in multi-professional educational sessions led by a clinical educator. These sessions were described as beneficial or extremely beneficial by almost all who had experienced them.
A large majority of clinical educators (n=88, 80%) confirm that they have provided multi-professional teaching sessions and describe the value of these as highly valuable or extremely valuable. Three-quarters of clinical educators (n=82, 75%) report that they are comfortable or extremely comfortable in providing multi-professional teaching sessions. Almost all managers (n=30, 91%) support clinical educators providing training to the multi-professional team.

Almost all clinical educators (n=95, 86%) consider it important or very important for them to support staff who are trained overseas with their development and training needs. SSI/FG discussions confirm the usefulness of multi-professional training for internationally trained clinicians.

7. Training of clinical educators

Almost all learners (n=190, 88%) expressed the opinion that clinical educators were sufficiently trained to carry out their role. In this evaluation clinical educators are all consultant doctors.

Further training for clinical educators is supported by clinical educators themselves, particularly in supporting learners in nonclinical (extended role) aspects of their lives e.g. how to help staff in difficulty, supporting well-being, mentoring etc. (see Appendix 7, 2.1.13.2).

Potential guidance from HEE and RCEM concerning future training of clinical educators would be welcomed by SSI/FG participants.

8. Non-medical / non-consultant clinical educators

A majority of clinical educators (n=64, 58%) hold the opinion that non-medical / non-consultants can deliver the teaching role of the clinical educator. Managers are equivocal in the matter, with an equal split of those supporting or not supporting extending the clinical educator role to others. Those supporting extension of clinical educators mostly favour emergency medicine registrars or ACPs. In SSIs / FGs the importance of the personal qualities of a (clinical) teacher were expressed, not just their professional background.

9. Recommended clinical educator activities

Activities most recommended by learners are workplace-based assessments, shopfloor teaching, and simulations. In SSIs non-medical learners preferred 1-to-1 sessions.

10. Future funding in support of clinical educators

- A large minority of clinical educators (n=48, 44%) hold the opinion that it is likely or very likely that their Trust will fund clinical educators beyond the pilot.
- Almost all managers (n=31, 94%) support the continuation of clinical educators in the future, and
- two-thirds of all managers (n=22, 67%) would support the future funding of this role.

SSI/FG participants discussed creating business cases for future funding, and evidence to support their application.

11. Impact or influence of COVID-19

These issues were explored briefly in the final survey. Key findings relating to the impact of COVID-19 are:

- changes in staff contracts/rotations/PA allocations
- decrease in emergency department attendance
- clinical educator roles were largely maintained, but contact time may have decreased and activities with learners did decrease

- clinical educators provided COVID-19 specific training
- where online platforms were used Zoom and Microsoft Teams were most valued
- the value of clinical educators during COVID-19 was largely unchanged due to the pandemic (that is, they remained highly valued) - 75% of managers said it was important or extremely important to maintain having clinical educators in the emergency department during the pandemic
- changes due to COVID-19 are not a uniform experience and vary across sites
- staff morale is adversely affected by the pandemic

12. Recommendations

- NHS Emergency Departments should appoint Clinical Educators to support the development and training of their multidisciplinary ED clinical staff.

- Clinical educators should be given sufficient ring-fenced time to fulfil their role. This will need local consideration but a minimum of eight hours per week per department is likely to be needed to bring identified benefits. Within the study, sites typically appointed individual clinical educators to one or two PAs per week. PAs are 4-hour sessions.

- Consideration should be given to clinical educators forming part of a multidisciplinary training team. This team may usefully include Advanced Clinical Practitioners and non-consultant medical staff (including trainees) who can demonstrate suitable knowledge and teaching skills.

- Clinical educators should be equipped and encouraged to provide educational support to all clinical staff of the Emergency Department from all professions. This may be focused on trainees and learners. However, benefits to fully qualified staff are also achievable.

- Regional HEE teams in collaboration with multi-professional Deaneries and Schools of Emergency Medicine enable, through regional processes, the release of time and integration of the clinical educator role.

13. Quantitative analysis

Capturing and analysing metrics specific to the evaluation of clinical educators is beyond the scope of this project.

However, the evaluation team has explored existing (public domain) data to identify changes that might be attributable to the clinical educator pilot. The approach adopted by the evaluation team is described in Embedded Document 1 below, including data selection and attribution to the CEED intervention.

Applying these principles the evaluation team obtained and explored the data contained within two national surveys. These are:

- GMC trainee survey 2018 (pre-CEED),
- GMC trainee survey 2019 (peri-CEED).

Data extraction, (*a priori*) question selection, and analysis are described in Embedded Document 1.

The summed survey responses from both years for the CEED (intervention) group were determined for each of the 11 selected questions and the category of response. Similarly, the summed responses for the control sites were determined as a comparator.

Of the chosen 11 questions:

- 1 question demonstrated significant improvement by the CEED group with significant deterioration in the controls: "Please rate the quality of clinical supervision in this post."

- 3 questions demonstrated significant improvement by the CEED group with no significant change in the controls:
  - How would you describe this post to a friend who was thinking of applying for it?
  - Please rate the quality of teaching (informal and bedside teaching as well as formal and organised sessions) in this post. (excl. Public Health and Pharmaceutical Medicine). Please rate the quality of teaching (informal as well as formal and organised sessions) in this post. (Public Health only). Please rate the quality of teaching/coaching (informal as well as formal and organised sessions) in this post. (Pharmaceutical Medicine only).
  - How would you rate the quality of the local/departmental teaching for this post?

- 5 questions demonstrated no significant change by the CEED group with significant deterioration in the controls.
- 2 questions demonstrated no significant change in either intervention (CEED) or control group.

Therefore, nine of the eleven questions show a favourable response by the CEED sites in comparison to the controls. Interestingly the four questions where CEED sites showed significant improvement may be most closely associated with the clinical educator role.

Further analysis suggests that the CEED sites have not exceeded the results for the control sites but have gained ground. CEED sites were chosen for clinical educator funding because they were having difficulty delivering high quality training as evidenced by being in the lower third of the GMC NTS survey results. Nonetheless, the evaluation team notes the progress (both improvements, and an absence of deterioration) that the CEED sites made in comparison to the controls. These findings are in keeping with the conclusions of the main study, and add to our confidence that clinical educators are beneficial to all emergency departments.

Further details are provided in Embedded Document 1 below.

14. Evidence for Innovation and Workforce Transformation

There is evidence that the CE role led not only to the delivery of the expected shopfloor teaching methods but was also associated with innovative ways of teaching and training. This was evidenced both in the ZOOM discussion sessions where CEs showcased what they had done and within the questionnaire that asked specifically what other activities (other than traditional shop floor teaching) CEs were engaged in and what innovations they felt were useful as a result of COVID-19.

Embedded Document 2 describes the following innovative approaches in more detail:

- Pop-up simulation:
- Silent simulation:
- Various forms of mini teaching sessions:
- Reverse ESLE
- Other activities

15. Next Steps

Embedded Document 3 includes both the **Clinical Educator Handbook** – developed during the CEED project, and a **service development (GROW) document**.

The clinical educator handbook aims to clarify the primary objectives of the role, provide information, signpost to supporting resources and guidance in delivering shop-floor education in an Emergency Department.

Conclusion

The Clinical Educator role is a unique opportunity to provide a consistent visible clinical shop-floor presence to support all the learners in the emergency department to have the skills and training as per their respective curricular requirements.

Embedded Document 1 - Examination of Quantitative Data

Capturing and analysing metrics specific to the evaluation of clinical educators is beyond the scope of this project.

However, the evaluation team has explored existing (public domain) data to identify changes that might be attributable to the clinical educator pilot. The approach adopted by the evaluation team is described below.

Stage I - data selection

The evaluation team, in discussion with an experienced medical statistician, developed the following criteria to select data for consideration.

Data sources / data points should be:

- from a validated tool,
- with a suitably high response rate (to support meaningful analysis),
- consistently applied across pilot sites and across the intervention period,
- the unit of analysis at site level (Trust level data may not be adequate since some Trusts do not have clinical educators at all of their sites),
- ensuring that the variability of the fluctuation of measures is known (so that existing data changes attributable to other non-clinical educator factors can be allowed for),
- ensuring that relevant parameters are identifiable and selectable according to the pilot (e.g. clinical educator sites versus nonclinical educator sites),
- ensuring that characteristics/response of the distribution results are known (for example is the distribution skewed).

A trawl of readily available data sources against the above criteria was undertaken – see Table 1. On examination the evaluation team noted the potential usefulness of relevant results from the GMC annual survey of trainees and findings reported as part of ARCP outcomes.

Table1. Potential data sets and assessment of usefulness.

Data set and logic	To be evaluated Y/N	If No, why. If Y, comments
Four-hour performance	N	Beyond the resources of the evaluation team to collate monthly data across 50+ sites. The link of 4hr performance to CE role is tenuous.
RCEM audits – could be useful to look at compliance with guidelines, frequency of consultant review as these may be influenced by CEED	N	For data to be useful the audit would have to have been repeated before and during the CE study. No study was conducted in 2018 and repeated in 2019.
Waiting times during CE teaching- as CEs may alter patient flow during teaching	N	The delivery of CE teaching varied between EDs(when and how often), and so which data to collect and to compare with is problematic
ARCP outcomes- could expect to be influenced by training and assessment provided by CEs	y	ARCPs reflects training for the previous year, and so for those who rotate, reflects more than one trust. Data not available at the time of writing the final report.
GMC survey data- could expect the responses to a number of the questions to be influenced by the intervention	y	See analysis
Vacancy rates. CEs could improve training and well being of staff, leading to improved retention and recruitment, reflected in changing vacancy rates	N	Would be an additional burden on Trust informatics team to request this. Some data is held in NES for some sites however this would take time to extract.
Resignation rates- leaving from departments might be influenced by CEs	N	This data not available for the relevant period - 2018/19, 19/20.
Work Place Based Assessments - CEs spent time providing assessments so would expect total number to increase	N	WPBAs –data at individual trust level not available from the existing e-portfolio without investment of additional money, which was not available to the evaluation team
Trust locum spend	N	Considered sensitive data
Serious incident reporting	N	Not available
Complaints	N	Problematic as would need to be compiled locally and cross referenced against when CE present on site.
NHS staff survey	N	Not identifiable at individual department level
GMC trainer survey	N	Limited relevance of questions to this project

Stage II – attribution of findings

To seek to appropriately attribute any data changes to the clinical educator pilot the team will:

- identify candidate data and data points as described above,
- explore data characteristics to adopt or exclude data,
- seek to identify control data (e.g. non-clinical educator sites) as a comparator,
- compare interventional data versus non-interventional data,
- identify metric shifts for study sites,
- apply Cochrane-Armitage test for trend to identify significance between datasets.

In this manner the evaluation team considered refined data for attribution. These data, their changes over the time of the pilot, relevance to the findings from the EOR study, and likely confounders (including COVID-19) was explored by the evaluation team to determine if findings can reasonably be attributed to the clinical educator intervention.

Applying the principles described in stage I above the evaluation team obtained and explored the data contained within two national surveys. These are:

- GMC trainee survey 2018 (undertaken March-May 2018, pre-CEED),
- GMC trainee survey 2019 (undertaken March-May 2019, peri-CEED).

CEED site activity commenced in October 2018. At the time of this report relevant data from the ARCP survey 2019 was not available.

Data extraction:

The GMC trainee surveys explore medical trainee participant responses to a series of questions designed to identify the opinions of the respondents. Results were filtered to select emergency departments at site level. The surveys present the participants with the opportunity to select a response from a set of ordinal options (e.g. very good - good - neither good nor poor - poor - very poor). These published results from the surveys are expressed within a numerical range of participants and does not provide absolute numerical data. In order to analyse the results data was reverse engineered using the 'nearest integer' method to identify the (estimated) actual number of respondents within any individual category. This was achieved using MS Excel 2010 and multilayer modulus data extraction. In this manner 88% of results were found to have a single defined result. Where more than one result was identified the lower result was taken forward for statistical analysis.

Question selection:

The evaluation team identified (a priori) 11 questions occurring in both surveys that were deemed to be relevant to the CEED project, and were selected for analysis. Differences in the text of the questions between the 2018 survey and the 2019 survey were considered. Where these were considered minor the questions were considered eligible for selection.

The final questions selected for analysis were:

1. How would you describe this post to a friend who was thinking of applying for it?
2. To what extent do you agree or disagree with the following statement? My organisation encourages a culture of teamwork between multidiscipline healthcare professionals (for example nurses, midwives, radiographers etc.).
3. 2019 - To what extent do you agree or disagree with the following statement? The working environment is a fully supportive one. 2018 - Please state whether you agree or disagree with the following statement about your post. The working environment is a fully supportive one.
4. Please rate the quality of teaching (informal and bedside teaching as well as formal and organised sessions) in this post. (excl. Public Health and Pharmaceutical Medicine) Please rate the quality of teaching (informal as well as formal and organised sessions) in this post. (Public Health only) Please rate the quality of teaching/coaching (informal as well as formal and organised sessions) in this post. (Pharmaceutical Medicine only).
5. To what extent do you agree or disagree with the following statement? I'm confident that this post will give the opportunities to meet objectives set out in my development plan relating to: CLINICAL EXPERIENCE (for example examination skills, taking a history, deciding investigations and management, seeing a variety of patients in different settings etc.).
6. 2019 - Local teaching takes place in the workplace. It includes organised, teaching sessions at departmental level as well as more informal sessions such as feedback from senior colleagues and bedside teaching. How would you rate the quality of the local/departmental teaching for this post? 2018 - How would you rate the quality of the local/departmental teaching for this post?
7. Please rate the quality of clinical supervision in this post. (Excl. Public Health and Pharmaceutical Medicine) Please rate the quality of supervision in this post.(Public Health and Pharmaceutical Medicine only).
8. How would you rate the quality of experience in this post?
9. In this post, how often (if at all) do you receive informal feedback from senior colleagues about your performance? (excl. Public Health and Pharmaceutical Medicine) In this post, how often (if at all) do you receive informal feedback from a supervisor/public health consultant/senior colleague about your performance? (Public Health only) In this post, how often (if at all) do you receive informal feedback from a supervisor/pharmaceutical medicine consultant/senior colleague about your performance? (Pharmaceutical Medicine only).
10. 2018 - Please state whether you agree or disagree with the following statement about your post: The working environment is one which fully supports the confidence building of doctors in training. 2019 - To what extent do you agree or disagree with the following statement? The working environment is one which fully supports the confidence building of doctors in training.
11. 2018 - Please state whether you agree or disagree with the following statement about your post. There is a culture of learning lessons from concerns raised. 2019 - To what extent do you agree or disagree with the following statement? There is a culture of learning lessons from concerns raised.

Site selection:

The results for the CEED study sites (n=50, intervention group) were compared between the 2018 survey (pre-CEED) to those in the 2019 survey (peri-CEED). A group of control sites (n=50) were identified by the evaluation team as having similar relevant characteristics to the CEED sites, and similarly results between the 2018 and 2019 surveys compared.

Analysis and Results:

The summed survey responses from the CEED (intervention) group were determined for each selected question and category of response. Similarly the summed responses for the control sites were determined as a comparator. Contingency tables were prepared and statistically analysed using Epitools software and Cochrane-Armitage (chi squared test for trend) test. Results are shown in Table 2 below. Significance was determined at the 95% confidence limit.

Table 2. Comparative results for both the intervention group (CEED) and controls for a priori selected questions from the GMC Trainee surveys collected March to May of 2018 and 2019.

		2019 vs 2018 GMC Trainee Survey	
No.	**Question(s)**	**Change - CEED**	**Change - Controls**
1	How would you describe this post to a friend who was thinking of applying for it?	Significantly Improved - p=0.0338	No Change - p=0.1473
2	To what extent do you agree or disagree with the following statement? My organisation encourages a culture of teamwork between multidiscipline healthcare professionals (for example nurses, midwives, radiographers etc.)	No change - p=0.8041	Significantly Worse - p=0.0466
3	To what extent do you agree or disagree with the following statement? The working environment is a fully supportive one (2019) Please state whether you agree or disagree with the following statement about your post. The working environment is a fully supportive one (2018)	No change - p=0.3548	Significantly Worse - p=0.0031
4	Please rate the quality of teaching (informal and bedside teaching as well as formal and organised sessions) in this post. (excl. Public Health and Pharmaceutical Medicine) Please rate the quality of teaching (informal as well as formal and organised sessions) in this post. (Public Health only) Please rate the quality of teaching/coaching (informal as well as formal and organised sessions) in this post. (Pharmaceutical Medicine only)	Significantly Improved - p<0.0001	No Change - p=0.4218

5	To what extent do you agree or disagree with the following statement? I'm confident that this post will give the opportunities to meet objectives set out in my development plan relating to: CLINICAL EXPERIENCE (for example examination skills, taking a history, deciding investigations and management, seeing a variety of patients in different settings etc.)	No Change - p=0.2338	Significantly Worse - p=0.0027
6	Local teaching takes place in the workplace. It includes organised, teaching sessions at departmental level as well as more informal sessions such as feedback from senior colleagues and bedside teaching. How would you rate the quality of the local/departmental teaching for this post? (2019)	Significantly Improved - p=0.0004	No Change - p=0.4934
	How would you rate the quality of the local/departmental teaching for this post? (2018)		
7	Please rate the quality of clinical supervision in this post. (Excl. Public Health and Pharmaceutical Medicine) Please rate the quality of supervision in this post.(Public Health and Pharmaceutical Medicine only)	Significantly Improved - p=0.0107	Significantly Worse - p=0.0227
8	How would you rate the quality of experience in this post?	No Change - p=0.2082	Significantly Worse - p=0.0141
9	In this post, how often (if at all) do you receive informal feedback from senior colleagues about your performance? (excl. Public Health and Pharmaceutical Medicine) In this post, how often (if at all) do you receive informal feedback from a supervisor/public health consultant/senior colleague about your performance? (Public Health only). In this post, how often (if at all) do you receive informal feedback from a supervisor/pharmaceutical medicine consultant/senior colleague about your performance? (Pharmaceutical Medicine only)	No Change - p=0.3009	No Change - p=0.1171
10	Please state whether you agree or disagree with the following statement about your post: The working environment is one which fully supports the confidence building of doctors in training (2018)	No Change - p=0.1394	Significantly Worse - p=0.0254
	To what extent do you agree or disagree with the following statement? The working environment is one which fully supports the confidence building of doctors in training (2019)		
11	Please state whether you agree or disagree with the following statement about your post. There is a culture of learning lessons from concerns raised (2018)	No Change - p=0.9667	No Change - p=0.5504
	To what extent do you agree or disagree with the following statement? There is a culture of learning lessons from concerns raised (2019)		

From Table 2 above its noted that:

- One question shows significant improvement by the CEED group with significant deterioration in the controls: Please rate the quality of clinical supervision in this post.

- Three questions show significant improvement by the CEED group with no significant change in the controls.
  - How would you describe this post to a friend who was thinking of applying for it?
  - Please rate the quality of teaching (informal and bedside teaching as well as formal and organised sessions) in this post. (excl. Public Health and Pharmaceutical Medicine). Please rate the quality of teaching (informal as well as formal and organised sessions) in this post. (Public Health only). Please rate the quality of teaching/coaching (informal as well as formal and organised sessions) in this post. (Pharmaceutical Medicine only).
  - How would you rate the quality of the local/departmental teaching for this post?

- Five questions show no significant change by the CEED group with significant deterioration in the controls.
- Two show no significant change in either intervention (CEED) or control group.

Question 9 in Table 2 asks respondents to identify the frequency of feedback they receive from senior or supervising colleagues about their performance. No significant change was found in either the intervention (CEED) or control group. This is the only question analysed that gives ordinal answer options in terms of time e.g. never - < once per month – monthly – weekly – daily. Coalescing results from 5 categories to 3 also shows no significant change for both CEED and control groups. It may be that CEs are considered to provide formal feedback and this question in the trainee survey asks about informal feedback.

In a separate analysis, a comparison of CEED-2019 results compared with Control-2019 results show a significant difference in favour of the control groups for questions 1, 2, and 11. There is no identifiable statistically significant difference between the results for the remaining eight questions.

The limitations of these analyses should be noted. These include:

- the GMC trainee surveys were not specifically designed to identify changes that relate to the CEED programme,
- the 2019 survey was undertaken during May - June 2019 (midway through the CEED intervention, and 18 months before the close of the evaluation period),
- these surveys only relate to medical trainees,
- attribution of the effect of a clinical educator on the intervention site results is unclear.

Nonetheless, the evaluation team notes the progress (both improvements, and an absence of deterioration) that the CEED sites made in comparison to the controls. These findings are in keeping with the conclusions of the main study and add to our confidence that clinical educators are beneficial.

Detailed results are available on request.

Embedded Document 2 – Innovations during CEED

There is evidence that the CE role lead not only to the delivery of the expected shopfloor teaching methods but was also associated with innovative ways of teaching and training. This was evidenced both in the ZOOM sessions where CEs show cased what they had done and within the questionnaire that asked specifically what other activities (than traditional shop floor teaching) CEs were engaged in and what innovations they felt were useful as a result of COVID-19.

Evidence:

1. **Pop-up simulation:**
   - These simulations are run in 15-minute slots.
   - HOW TO RUN POP-UP IN-SITU SIM IN A BUSY ED:
     Prep your team half an hour beforehand. Make them set an alarm on their phone 5 minutes before kick-off.
     1) Any empty cubicle will do
     2) Low fidelity patient - One of your team! Staff & students bring realism. And they'll learn at the same time!
     3) Low fidelity kit - download the SimMon app to 2 phones: one as remote control, the other as the monitor.
     4) The 5:5:5 formula. 5 mins run, 5 mins discussion, 5 mins re-run. Performance is always better second time; people leave with their tails up; this is also "spaced repetition" learning.
     5) Focus debriefing on decision points. Ask "what are the pros and cons". Open this to all present.

2. **Silent simulation:**

In the pandemic period, when staff are wearing PPE, there are risks of miscommunication. People cannot hear properly as it gets muffled. And noisy ambience makes it worse. Instructions can be misheard. There is high chance of non-verbal language being lost. This has been recognised as a known consequence leading to fatal errors. It has been noted the use of sign language, and use of alternate methods of communication will help to reduce these errors. Silent simulation sessions wearing full PPE in pragmatic clinical settings, either in high fidelity or low fidelity environment using these standardised sign languages, or white board communication in small group teaching sessions will certainly help.

3. **Various forms of mini teaching sessions: Clinical pearls/ FOAM-ED prescription/ Post-it pearls, Case of the week, Bite-size learning, etc:**

This format suits both the trainers and learners where there are financial and time constraints. It is cost effective, quick, concise and can be contextualized to the department and to the need of the hour. These are best described as a string of multiple independent clinical information from experience or observation which is useful for clinical practice, gained from real life clinical experiences.

This can be done in various platforms e.g. writings on white boards in department for display, sticky posters on post up wall or using the different electronic media like email, social media platforms like WhatsApp, Twitter, Instagram or Facebook whichever is popular in the department recognising the governance issues of patient confidentiality, data protection and adhering to the local policies with safety measures in situ.

4. Reverse ESLE:

This is based on ESLE assessment by RCEM which is an important WPBAs that is completed by ST3s and above. Here, the registrars observe how the Consultant runs the shop-floor, makes notes and then there is hot-debrief of the observation and reflection after.

5. Questionnaire Evidence:

Summary of the other activities (than traditional shop floor teaching) CEs were engaged in and what innovations they felt were useful as a result of COVID-19.

1. Handbook

Clinical Educator in Emergency Department

The authors gratefully acknowledge the following contributors to this handbook:

RCEM Members,
Aston University Members,
CEED Clinical Educators that took part,
HEE UECare Project team.

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Glossary

Term	Definition
ACP	Advanced Clinical Practitioner
AHP	Allied Health Professionals (such as Physiotherapists, Occupational Therapists, Speech and Language Therapists, Podiatrists).
CBD	Case Based Discussions - is a supervised learning event (SLE) tool. This is a structured discussion of a clinical case managed by a Trainee. Its strength is investigation of, and feedback on, clinical reasoning.
CE	Clinical Educator is responsible for a variety of training duties in Emergency Department. Much of their work (about 90%) focuses on shop floor teaching ensuring that learners have the skills and training as per their respective curricular requirements.
CESR route	Certificate of Eligibility for Specialist Registration - a route to entry on to the specialist register for those doctors who have not followed an approved training programme.
DOPs	Direct Observation of Procedural Skills - is a supervised learning event (SLE) tool. The primary purpose of DOPS is to provide a structured checklist for giving feedback on a Trainee's interaction with the patient when performing a practical procedure.
ED	Emergency Department.
ENP	Emergency Nurse Practitioner.
ESLE	Extended Supervised Learning Event.
HCA	Health Care Assistant.
Mini-CEX	Mini-Clinical Evaluation Exercise - 15 – 20 minutes, observed, real-life, interaction between a trainee and a patient and/or doctor. The observer provides the trainee with immediate feedback on this interaction, focussing on the clinical skills, attitudes and behaviours of expected of the trainee
RCEM	Royal College of Emergency Medicine
SAS Doctor	Specialty and Associate Specialist doctors - are non-training roles where the doctor has at least four years of postgraduate training, two of those being in a relevant specialty.
SLE	Supervised Learning Event.
tACP	Trainee Advance Care Practitioner.
WBA or WPBA	Workplace Based Assessment

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Who is a Clinical Educator?

Clinical Educator (CE) provides a consistent visible clinical shop floor presence to support all the learners in ED to have the skills and training as per their respective curricular requirements. In addition to providing clinical supervision on the shop floor a CE will also complete assessments using work-place based assessments [WBPA] as required by the learner curricula (E.g., Mini-Cex, DOPs, CbD, ACAT, ELSE and management WBPA's). Although majority of teaching is shop-floor based it is also acceptable that CEs are also apt in other forms of teaching (classroom, clinical skills etc) to able to adapt their teaching to the learner and departmental needs.

The CE should not be wholly responsible for all the education and training in the department. The CE contribution is **in addition** to education delivered per agreed job plans. **This role does not alter the need for all trainers in ED to continue to participate in shop floor training and assessment.**

Learners in Emergency Department

Emergency Departments are melting pots of learners. It is very much a multi-professional workforce. CE must be a resource for all learners in Emergency Medicine. The learner group in ED are listed as below.

Group	Description
Doctors in training	• Foundation years (FY1 & 2) • EM trainees: EM streamed ACCS, DRE-EM trainees, ST3 & Higher Specialty Training (HST) • Non-EM trainees: GPVTS, AM or Anaesthetic streamed ACCS, etc
Doctors who are not in training	Locums and SAS doctors (staff grade specialists including those going the CESR route).
Allied Health Professionals (AHPs) and other Clinicians in the ED	• Health Care Assistants [HCA] • Advanced Clinical Practitioners [ACP] • Emergency Nurse Practitioners [ENP] • Clinical Pharmacists. • Paramedics • Physician Associates • Nurse Associates • Advanced Nurse Practitioners [ANP] • Surgical Care Practitioners • Advanced Critical Care Practitioners • Pharmacy Associates

What makes a good Clinical Educator?

CEs should be the exemplar for the delivery of shop floor-based training in the fundamental clinical skills of EM. The following characteristics are essential for a CE in the ED:

- A CE in EM should have patience, be respected and most importantly be credible in the field of EM
- CE must not only have a detailed knowledge of RCEM Curriculum and its application to practice but also how the curricular needs of various EM leaner groups vary.
- A CE should ideally be working at Tier 5 level as per Royal College of Emergency Medicine's recommendation.
- A CE in EM should be approachable by all EM learners so that all EM learners irrespective of their grades need to feel safe and secure.
- A CE should possess good communication skills that are essential for any good educator. These also include positive motivation skills, effective body language, listening skills, etc
- EM is a dynamic high-speed speciality. Being able to adapt the teaching/ supervision activity to shop-floor pressures so an essential requirement in any CE in EM. In addition to this important skill, a CE should also be able adapt their teaching and feedback technique to the learner/s requirements.
- CE should also have knowledge of assessment needs of the various learner group and how to complete the required assessments.
- CEs must foster a safe and nurturing learning environment.
- A CE should possess the drive and passion to meet the educational needs of the learners in the ED.

Why be a Clinical Educator in Emergency Medicine?

- Opportunity to develop a portfolio career with the CE role as the role leads to a better understanding of learners and their needs through an increase in contact time.
- This could result in renewed interest in specialty of EM
- Opportunity for uninterrupted education/training for complex patients or procedures
- Opportunity to develop other non-clinical skills such as project management, creative thinking, team development
- Better control over job plans with a higher degree of flexibility
- Choosing what to teach can lead to a renewed enthusiasm for teaching;
- Feeling of empowerment due to autonomy over decisions regarding methods of teaching and supervision.
- Reduction of direct departmental service pressure whilst conducting training, if time is adequately protected.

Why have a Clinical Educator in ED?

- Relevant workforce development of the ED can enhance job satisfaction of the individual learner
- Informed contribution by CEs to faculty statements helps focus learning needs by helping build individual learner educational profile.
- Commitment to education is demonstrated through protected teaching time during busy periods
- Pro-active CEs will actively engage learners making them feel valued.
- Individualised shop-floor supervision/ training may lead to better teamwork and improved clinical outcomes.
- Ring fenced time should increase the availability for high quality procedural training
- Opportunity to observe excellent education and training facilitation
- All of the above will help enhance the reputation of the ED and help with recruitment and retention

Who would be make a good Clinical Educator in Emergency Medicine?

- Consultant in EM:
  - Have demonstrated competence at FRCEM or Equivalent.
  - Knowledgeable in application of curriculum to practice.
  - Desirable to be Examiner.
  - Desirable to have PGCert or higher in Education

- SAS doctor in EM:
  - Many have interest in Education
  - Many have a wealth of Experience, though may not be equal in all areas of curriculum.
  - Should be supported by a Consultant CE

- Higher Speciality Trainees in EM:
  - Many have interest in Education
  - Should have passed all parts FRCEM to show knowledge
  - Should be supported by a consultant CE

- ACPs in EM:
  - Many have interest in Education
  - Many have a wealth of Experience, though may not be equal in all areas of curriculum.
  - Should be supported by a Consultant CE.
  - Should not be expected to take on a CE role while undertaking practitioner training

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Clinical Educator session delivery:

A) How much?

Learners love learning sessions. So, they would like as much as possible. The delivery of educational programmes however will be dependent on the number of hours of CE time and the total number of learners. It is also possible for a predominantly shop floor-based role to be integrated into the overall strategy of educational delivery in the ED by the whole faculty. A minimum of 8 hours of shop floor clinical educator session per week in an average DGH ED is recommended. Tertiary and Trauma Centre may need more.

In addition to shop floor teaching/ supervision, the CE role is ideally placed to deliver WBPAs whose main focus is on shop floor assessment. However, it is impossible for a single CE on 1 PA to deliver all shop floor based WBPAs for all EM learners in the ED. This burden should be equally shared amongst the entire ED educational faculty.

B) When?

These sessions can't be a 9-5 thing. For these sessions to be useful to the department and the learners, they need to be matched to both learner availability and when majority of learning opportunities are available

C) CE identification

An effective CE will have a high level of both visibility and availability to learners to ensure they are accessible and well utilised. Various strategies used are:

- Different scrubs
- Badges
- Lanyards
- Clinical Educator role named on rota/ roster
- Present at handover/shift changes.

D) Organisation of CE session:

CE sessions should be learner centred session and the CE should be aware of learning/ curricular needs of the learner/s (clinical/ managerial/ leadership/ exams/ procedural/ quality improvement learning needs). These sessions could either be 1 to 1 or group sessions.

The CE role should be based on the shop floor 90% of the time; the advantage of this is the ability to teach using clinical cases specific to their ED, enabling CE to:

- Be responsive to both learner and Departmental needs; and
- Translate clinical cases into learning experiences.

This should not detract from the usefulness of also undertaking planned (scheduled) teaching sessions. Hence, we will explore organisation of both scheduled and unscheduled CE session further in the next section.

➢ Scheduled session

Staff should be able to book into these sessions either electronically or alternatively, a calendar on the wall that is accessible to all learners, which will detail the CE session (who it is, time) and indicate if there are bookable slots

There are several options:

1) Planned CBDs – the CBD Clinic
2) Rostered Focused teaching – Exam Prep
3) Clinical Skills –commonly performed ones such as suturing or uncommonly preformed ones such as cardioversion, thoracotomy, etc.
4) Responsive Teaching based on Clinical Incidents, Complaints
5) ESLE or Reverse ELSE or ACAT
6) Planned 1:1 teaching sessions that identify Learner needs beforehand
7) Case of week discussion either online or face to face in handovers
8) Ultrasound teaching
9) Scheduled simulation in simulation suite or in-situ either focussing on human factors or clinical teaching elements or both. These sessions could focus on either team based or individual learning needs.
10) Teaching by clinicians from outside ED or other healthcare professionals: for example: teaching on proning patients during coronavirus pandemic, etc.

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➢ Unscheduled session (Majority of CE sessions)

These CE sessions timetables should be made available to all staff by email or posters or notice-boards. Staff could also be reminded at handovers that CE is working that shift. These sessions need to be adapted to departmental needs (busyness).

Unscheduled teaching session in a non-busy ED department

These sessions can be planned as opposed to the teaching in a busy department. Some of the suggested activities are:

1) Silent simulation

In the pandemic period, when staff are wearing PPE, there are risks of miscommunication. People cannot hear properly as it gets muffled. And noisy ambience makes it worse. Instructions can be misheard. There is high chance of non-verbal language being lost. This has been recognised as a known consequence leading to fatal errors. It has been noted the use of sign language, and use of alternate methods of communication will help to reduce these errors. Silent simulation sessions wearing full PPE in pragmatic clinical settings, either in high fidelity or low fidelity environment using these standardised sign languages, or white board communication in small group teaching sessions will certainly help.

2) Pop-up simulation

- Prep your team 30min before
- Get them to set an alarm 5min before kick off
- Any Empty cubicle will do
- Low Fidelity Patient – one of your team, Staff or student
- Low Fidelity Kit – SimMon App on 2 phones – 1 control 1 Monitor
- 5:5:5 Formula -5min Run, 5min Discussion, 5Min re-reun
- Spaced Repetition Learning
- Focus Debrief on Decision Points

3) Clinical Skills observation or teaching (opportunistic) such as fracture manipulation or sedation.

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Unscheduled teaching session in a busy ED department

These are more opportunistic or “Grasp the Unexpected Teaching Moments”.

Strategies commonly used:

1) Have prepared various forms of mini teaching sessions focussing on high yield topics that can be used in between cases. PEARLS (clinical, governance, well-being), FOEM-ED prescription/ Post-it pearls, Bite-size learning, etc

This format suits both the trainers and learners where there are financial and time constraints. It is cost effective, quick, concise and can be contextualized to the department and to the need of the hour. These are best described as a string of multiple independent clinical information from experience or observation which is useful for clinical practice, gained from real life clinical experiences. This can be done in various platforms. E.g. writings on white boards in department for display, sticky posters on post up wall or using the different electronic media like email, social media platforms like WhatsApp, Twitter, Instagram or Facebook whichever is popular in the department recognising the governance issues of patient confidentiality, data protection and adhering to the local policies with safety measures in situ.

2) Use current clinical cases as a teaching resource, focusing on their care, clinical process and management. Most of these are one to one, over a short period (no more than 30 mins for each individual), tailoring the learning to the learner’s specific needs. This can help to reduce pressure on the shop floor.

Teaching strategies used for clinical cases could include:

- ✓ 1 Minute Preceptor or 5 Step Micro Skill
- ✓ SNAPPS

Teaching strategies used for clinical skills could include:

- ✓ Active Demo of Clinical Skill

E) Capturing Learner Feedback

To ensure the success of the CE role, capturing the feedback of learners is essential as it enables CE to improve their teaching and the training they provide. This can be achieved using specific forms either in the paper format e.g. Leicester CBD (Appendix1) and SIM feedback (Appendix 2), teaching session feedback (multidisciplinary) and can be done immediately after the teaching or online using survey monkey / Google survey / JISC;

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Potential Challenges of Being a Clinical Educator with possible solutions:

1) All WPBAs left to the CE: Use quota system where the responsibility for completion of WBPAs is shared between all consultants:

$$\frac{\text{Number of assessments per trainee x number of trainees in ED}}{\text{Total number of faculty delivering education in ED}}$$

2) Being pulled into clinical management during a CE session: This can be helped by gaining support for the CE role from Operational leads/ managers/ matrons OR by modifying the CE role to reflect how busy the department is.

3) Department recognising that CE role is in addition to existing training not as a substitute for it: The training activities of all consultants and its audit is the responsibility of the clinical lead/training lead who should undertake to monitor all consultant training activity.

4) Learner buy-in for CE sessions: Popularise these sessions so that the leaners are aware

5) Assumption that patient flow affected negatively due to CE: Adjusting teaching and training to minimally disrupt flow is an important skill of the CE. As suggested in the manual maximum 30 minutes per learner.

Lone Nuts Dancing & Embedding the Change.

The key to embedding any change is building a movement to support it. At TED in 2010 Derek Sivers, used the analogy of the Lone Nut Dancing, to describe how movements are formed. This analogy deals with the concept of leaders, and the importance of recruiting followers. Once a change has a big enough following it rapidly becomes accepted practice, and even those that initially opposed join.

As you move from a pilot to business as usual for the CEED programme you will need to build our own movements. This involves:

- Identifying and engaging our key stakeholders, who will be your followers.
- Pitching the idea by telling a narrative that speaks to their priorities.
- Showing we have analysed the project and thought it through.
- Demonstrating it aligns with Trust Priorities.
- Completing a business case.

This is new to many clinicians and can be quite daunting. The aim of this section is to demystify the process and provide some tools that can be used to help.

The Audience – Key Stakeholders

The exact audience will vary from organisation to organisation, but for CEED they can be classified into 5 main groupings, these are summarised in the table below.

Table 9 Example Stakeholders

	Examples:	
Medical Leaders	Consultant Colleagues	Departmental
	Clinical Lead/Director	
	Divisional Director	Division/Care Group
	Medical Director/Chief Medical Officer	Trust Executive
Nursing Leaders	Band 7s	Departmental
	Matrons/Nurse Educators	
	Associate Directors of Nursing	Division/Care Group
	Chief Nurse/ Director of Nursing	Trust Executive
Operational Managers	Service Manager	Departmental
	Divisional Director	Division/Care Group
	Chief Operating Officer/ Managing Director	Trust Executive
	Chief Executive	
Financial Manages	Divisional Finance Manager	Division/Care Group
	Chief Financial Officer	Trust Executive
End Users	Our Learners	Departmental
External Bodies	RCEM	National
	HEE	ALB/National (England)
	School of EM	Regional

Stakeholders will have varying levels of power and interest in the CEED project, which will dictate how you will need to engage with them (Figure 1 https://tinyurl.com/ycgf5hxx https://tinyurl.com/hrqv9yx) . Mapping out this can help us prioritise who we need to get on

board with to move the project forward. Table 10 is a useful tool for mapping the impact of your stakeholders. It is important to remember that while the end users (learners) will be very interested in the project, they will often have very little influence or power over it.

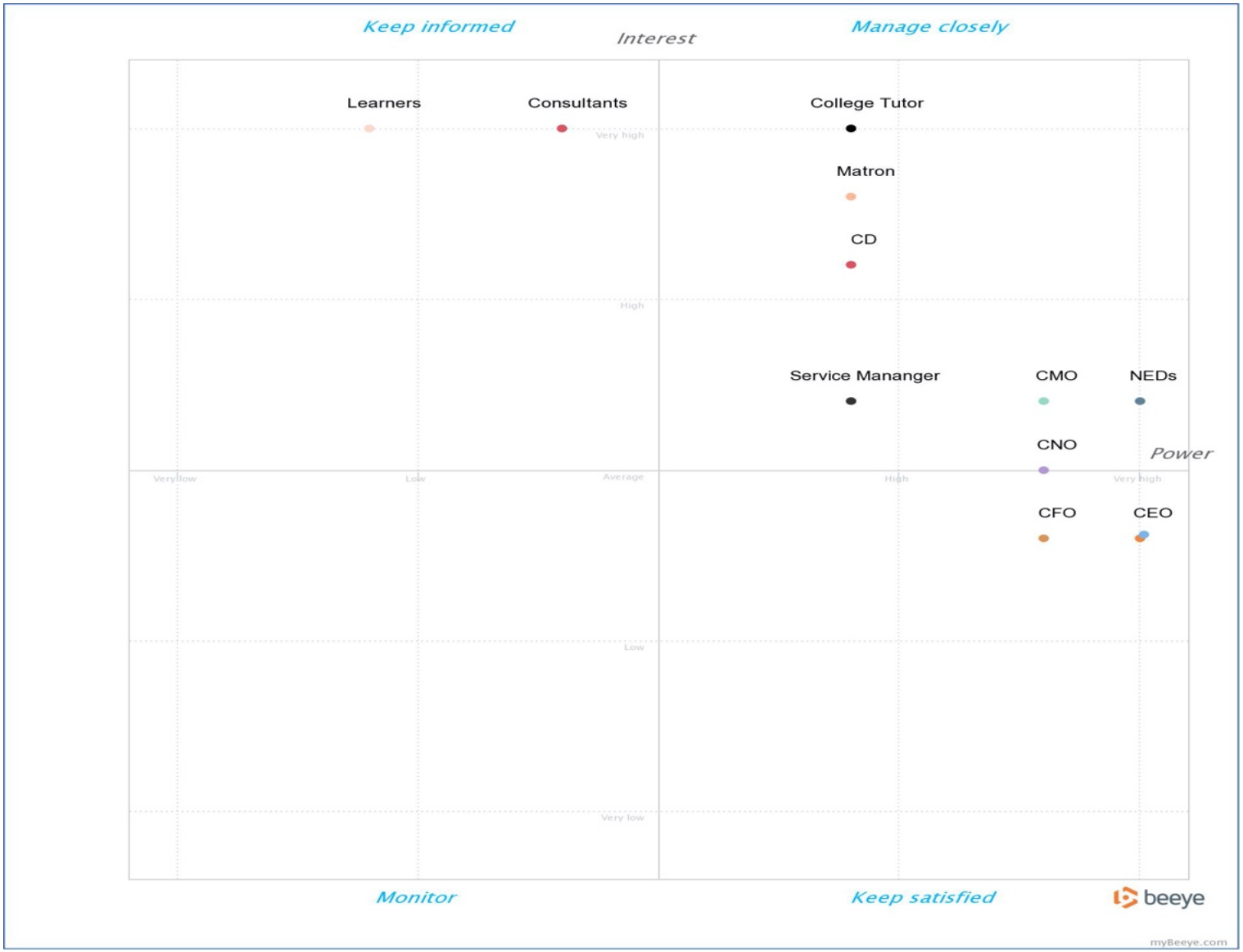


Figure 1 Power v Interest

Table 10 Stakeholder Mapping

	Stakeholder Role	Journey Impact Upon Stakeholder (Low, Medium, High)	Influence How much influence do they have over the journey? (Low, Medium, High)	What is important to the stakeholder?	How could the stakeholder contribute to the journey?	How could the stakeholder block the journey?	Strategy for engaging the stakeholder in the journey	Interventions for dealing with stakeholder knowledge gap(s)
1 Example	Clinical Director	High	High	KPIS, R&R, Staff satisfaction Safety	Support is key, Financial and job planning Open Doors to other stakeholders	If not supportive will be difficult to recruit other stakeholders	Frequent 1:1s	Link with other CEs and departments who have them
2								
3								
4								
5								
6								
7								
8								

Pitching the Idea.

Once you have identified the stakeholders and their respective influence over the project, you need to pitch it to them. This may seem alien, but it actually you pitch every day in your clinical day job.

On the shop floor, patients tell stories that are related to you. You then pitch those stories to key stakeholders. It could be the story of the patient with abdominal pain who needs a CT. Or the patient with pneumonia who needs admission. You are an expert in identifying the priorities of your stakeholders, and ensuring you speak to those.

Pitching for support for CEED as business as usual is the same. You need to speak to the key stakeholders with the most influence, ensuring the story is tailored to their priorities.

This means that when you pitch to senior clinical leaders you should emphasise the patient safety aspects of improved retention. Equally impact on GMC survey results or local surveys you have done as part of the pilot will be useful here

The pitch to Chief Finical Officer will probably focus on the impact on financing, so improved retention means less money on locums.

The Chief Operating Officer may be more focused on performance against key indicators such as the 4-hour standard, so improved retention means fewer locums, which means fewer breaches.

Non-executive directors will be more focused on patient and staff experience. Thus, improved retention means fewer temporary staff which means better patient experience.

By the nature of their jobs key stakeholders may only have a few minutes for you to win them over. The key is a practiced, short succinct pitch which speaks to them – in business this is an elevator pitch. This video gives a nice summary of the elevator pitch.

Data Drives Change

Just as in clinical medicine we use data to drive change, the same is true in a business case. If you want Trusts to invest funds, you need to show how it will positively impact on key Trust objectives. Data from the pilot will help here, but you also need to factor in local data. This could be:

- Recruitment and retention.
- Markers for staff satisfaction – GMC survey, Staff Survey, Sickness.
- Conversion of Trainees to substantive consultants.
- Spend on temporary staff.
- Patient Safety.
- Impact on Key Performance Indicators.

Remember that your story needs to speak to your most powerful stakeholders, so you need to map things as much as possible to your departmental and Trust priorities. When analysing the potential impact of the project, SWOT and PESTLE are useful analytical tools that allow us to clearly map out the costs, benefits and potential barriers to the project.

SWOT stands for:

- Strengths
- Weaknesses
- Opportunities
- Threats

It is mapped out in a 4x4 box plot. Strengths and Weaknesses are internal to the organisation while Opportunities and Threats are external.

An example SWOT for CEED is below:

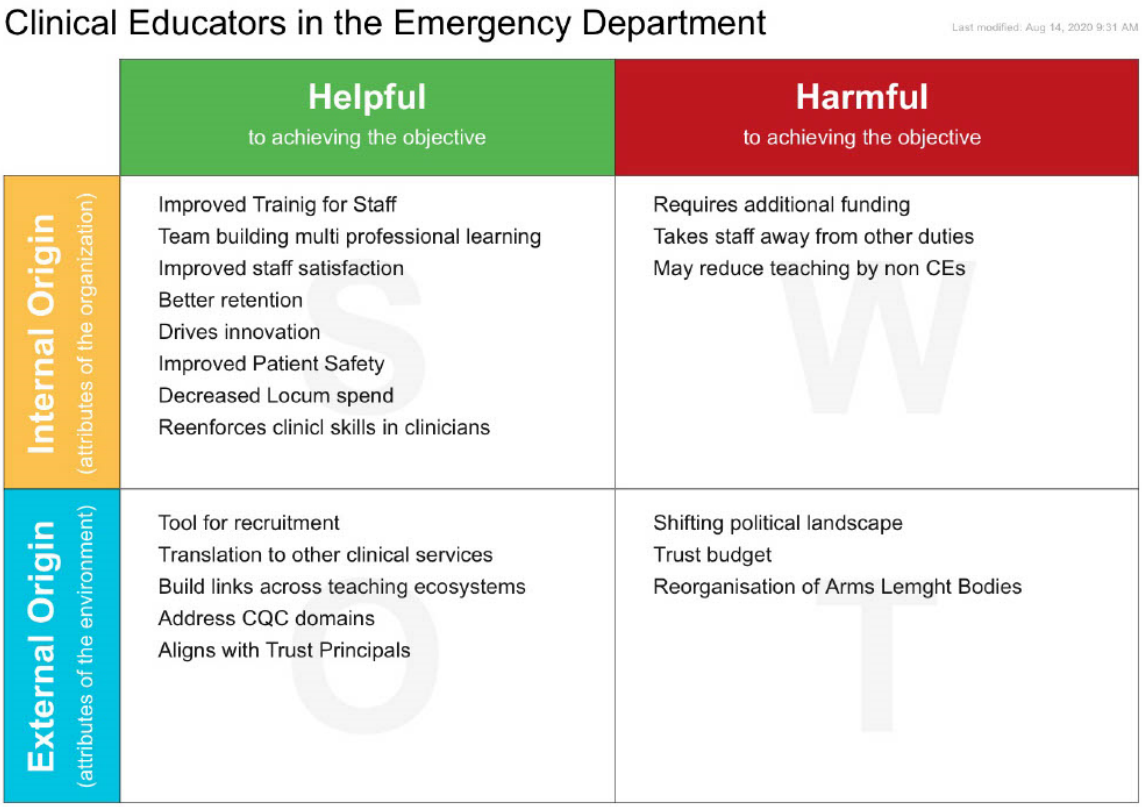


Figure 2 SWOT Analysis Example

PESTLE (Table 11) analysis is tool for mapping external forces that will impact on the project. It is broken into:

- Political
- Economic
- Social
- Technological
- Legal
- Environmental

Many consultants will be naïve to both of these tools, however by adding them to our narrative for change we can show that we have thought through things and analysed them in a structured way. Just as we do

when we clerk a patient or review with a junior. This level of analysis will instil confidence in our most powerful stakeholders that the project is well thought through and not just a flight of fancy.

Completing the Paperwork

All Trusts will have their own version of business case template. We have included a generic example, with some suggested wording. The templates can be very daunting to the uninitiated, so a key step here is to enlist the help of your service manager or equivalent. Once you have drafted your case they will be able to help you tweak the language and importantly add the data that will reinforce your case for change.

Whenever possible make the case for a permanent change. The aim is for Clinical Educators to be part of Business as Usual rather than something that requires annual funding review.

Table 11 PESTLE Analysis Grid

Political	Economic	Social	Technological	Environmental	Legal

Appendix 1 - #EM3 Educational Fellow CBD Clinic Feedback

University Hospitals of Leicester NHS Trust

#EM3 East Midlands Emergency Medicine Educational Media

#EM3 Educational Fellow CBD Clinic Feedback

Education Fellow Clinic Type (Please Circle): Adult Paediatric

What grade are you? (Please Circle)

FY1 FY2 GPVTS ST1 GPVTS ST2

Trust Grade SHO ANP ACCS CT1 ACCS CT

Was the booking process for the CBD Easy? (Please Circle)

Very Easy Not Easy

Easy Difficult

Do you like being able to book you Educational Assessments online? (Please Circle)

Yes No

How many CBD Clinics have you done before? (Please Circle)

None 1 2

3 4+

What was the topic you brought to the CBD clinic today?

Why did you bring this topic?

What did you want to learn from your CBD Clinic visit?

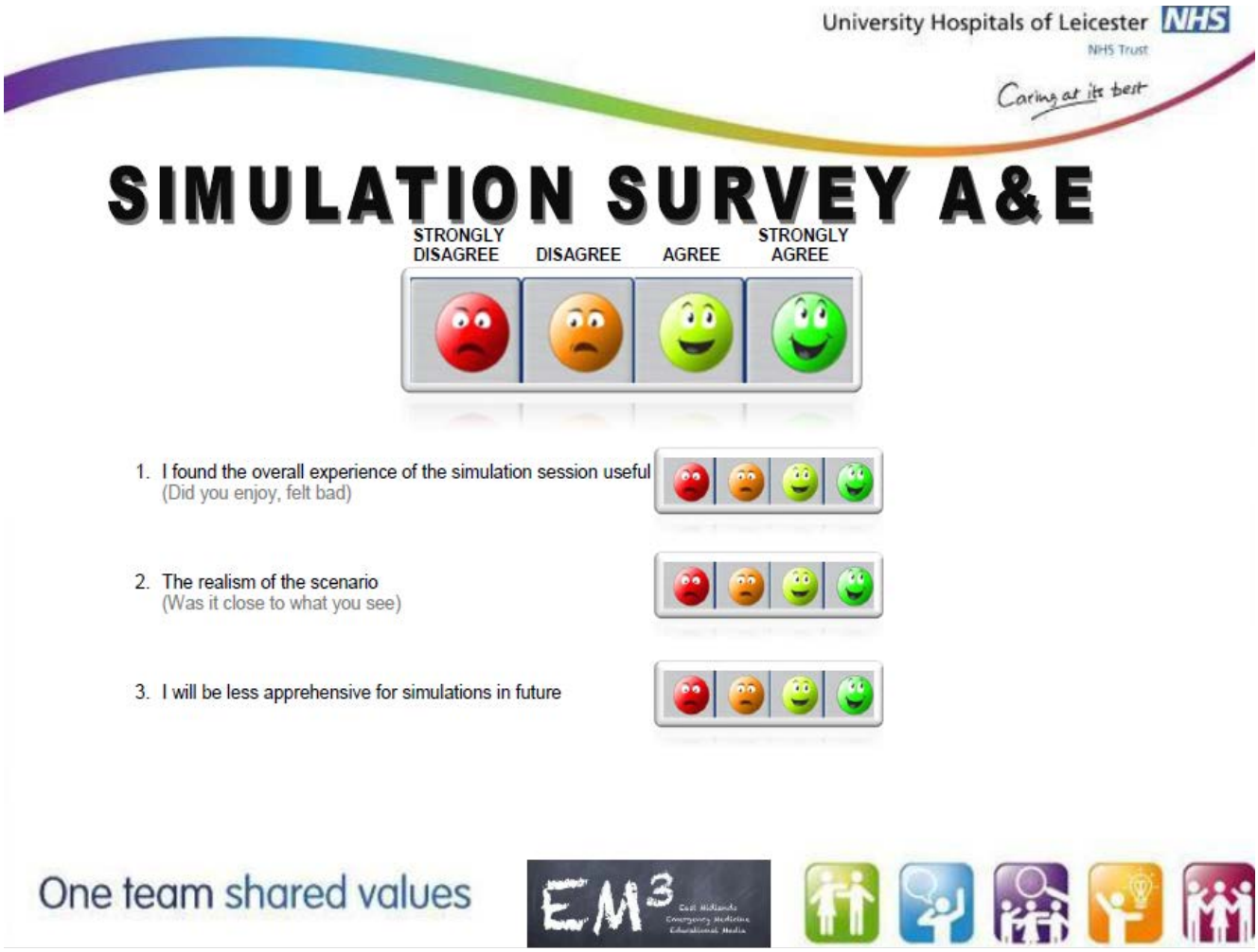
What did you learn from your CBD Clinic visit?

Are the CBD clinics a useful resource? (Please Circle)

Yes No

what could we have done better? Any other comments

Appendix 2 - Simulation Survey A&E



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Appendix 3: One Minute Preceptor Model

The one-minute preceptor model was first described in Family Medicine Education literature by Neher et al 1992

Four Steps to the One Minute Preceptor Model

1) Get a commitment from the learner
2) Probe the learner for what led them to their differential diagnosis or plan
3) Teaching a general principle
4) Reinforce what was done right and correct errors

OR

This is a 5 step model of clinical teaching that utilizes Simple, discrete teaching behaviors or "microskills."

1) get a commitment,
2) probe for supporting evidence,
3) teach general rules,
4) reinforce what was done right, and
5) correct mistakes.

Reference:

Neher J, Gordon K, Meyer B, Stevens N. A five-step "microskills" model of clinical teaching. J Am Board Fam Pract. 1992;5(4):419-424

Appendix 4: SNAPPS

This is six steps teaching method

1. Summarize Briefly the History and Physical Findings.

2. Narrow the Differential to Two or Three Relevant Possibilities.

3. Analyze the Differential by Comparing and Contrasting the Possibilities.

4. Probe the Attending / Preceptor by Asking Questions about Uncertainties, Difficulties, or alternative Approaches.

5. Plan Management for the Patients Medical Issues.

6. Select a Case-related Issue for Self-directed Learning.

Reference:

Wolpaw, T., Wolpaw, D., & Papp, K. (2003). SNAPPS: A Learner-centered Model for Outpatient Education, Academic Medicine 78(9), 893-898.

Appendix 5: Clinical Educators Model Business Case to submit to Trust exec for funding

STRATEGIC BUSINESS CASE
Clinical Educators in Emergency Departments

1. Executive Summary	
Service Development	
Division / Service	
Clinical or Service Lead	
Strategy & Business Development Lead	
Strategic Lead	
Executive Sponsor	

Strategic Review Y/N	***Divisional Board Y/N***	***Budget Setting Y/N***	***Capital Plan Y/N***	***TEC*** *dd/mm/yy*	***TIG*** *dd/mm/yy*	***S&FC*** *dd/mm /yy*	***Trust Board*** *dd/mm/yy*

This case is to seek approval to fund X amount of PA's for time to provide multi-professional education in the Emergency Department which is outlined within this case.

A Health Research Authority (HRA) approved research evaluation of the pilot has been completed and suggests the following core benefits to the Trust and department:

- improved or accelerated capability and clinical confidence of Emergency Department learners,
- improved safety/decreased risk,
- an improved recruitment profile,
- an improved working environment that supports the wellbeing of staff,
- enhanced support for new staff including those from overseas.

The service require the changes by the department to the Consultant rota and workforce plan to increase it's capacity in order to accommodate the request.

Financial Summary

Breakdown of request of number of PA's required (including the additional time required to accommodate any clinical work)

Service Development title	***Value***	***Pass/Fail***
Is I&E impact positive in the remainder of the current financial year? (If applicable)		
Is the I&E impact positive in the first 12 months?		
If a revenue only case is the ROI positive?		
If a revenue only case is the ROI 2:1 or greater? (year 5)		
Is the NPV positive?		
If capital, is there x3 payback within the first 10 years or asset life (whichever is sooner)?		
Are all quantified benefits cash generating?		

Approval Threshold Required:

TIG: Y / N	**TEC: Y / N**	**TB: Y / N**

TIG/TEC/Trust Board are asked to:

-

2. STRATEGIC CASE

Note: Only detail relevant to the case being made is required, however robust supporting evidence should underpin the case and be available upon request. A clear, succinct rational for why an investment decision/approval is being requested is also needed.

Current Top 3 Division Priorities:

Local input: Consider priorities such as ED dashboard, reduced wait times, staff recruitment and retention, overall cost savings, improved staff wellbeing

How does this proposal compare to the priorities above:

Outline how the strategy responds to the priorities above.

How does the case deliver the Trust's strategic priorities:

Outline Trust strategic priorities and how the strategy responds to these

2.1 Case for Change

National driver, commissioner intention, market/ growth changes, capacity or operational pressures, governance/safety concerns, investment...

In 2012 RCEM highlighted a number of concerns to the General Medical Council [GMC] related to emergency medicine training, these included:

- continuing service pressures, which reduces the amount of time trainers can dedicate to delivering training;
- rota gaps, which increase the pressure on doctors in training to work more out-of-hours shifts;
- a lack of senior supervision for junior doctors in training; and
- a lack of resources, leading to ineffective simulation training.

The GMC in turn published a review of training in seven emergency medicine departments where they highlighted concerns around:

- understaffing as evidenced by increases in unfilled training posts;
- the perceived undesirability of the specialty due to the high and intense workload;
- an increase in unsatisfactory outcomes in Annual Review of Competence Progression [ARCP];
- the amount and quality of supervision received by Trainees.

These issues have been further highlighted and evidenced in the following sources:

- Previous assessments of training by EM trainees has indicated that training could be improved in a number of ED. (GMC NTS 17&18).
- Trainees reported disillusionment with the specialty of EM with high rates of burnout reported, concerns over intensity of the workload, and the quality of training. (GMC National Training Survey [NTS] and Emergency Medicine Training Association [EMTA] surveys).
- Recruitment has previously been reported as a problem but also retention with trainees leaving EM typically after core training or remaining in EM but pursing their career in another country. (RCEM data 2017/18).
- Anecdotal suggestions that staff shortages and the pressure of clinical work may have been impacting on the ability of educators to deliver training.

This suggests that there is a link between the quality of training and:

- recruitment and retention of staff;
- the ability to successfully progress through the training programmes;
- the recipient's sense of value, morale and wellbeing; and
- creating a culture that supports learning and challenge enhances patient safety, leading to fewer clinical incidents.

In October 2017, RCEM, HEE, NHS England and NHS Improvement published 'Securing the Future Workforce for Emergency Departments in England' to ensure a sustainable workforce capable of meeting the growing demands of the future. The publication refers to the development of a clinical educator strategy to support junior clinical staff working in (ED) and reduce attrition to the workforce.

This was to be achieved by offering increased time for education with senior clinicians; the absence of which can often be exacerbated by clinical pressures in the ED, lack of teaching infrastructure, small clinician bases and workforce gaps. The Clinical Educator strategy looked to address these issues and undertake a pilot scheme that focused on providing dedicated training time within ED within up to 60 underperforming Trusts in England; Trusts which were in the lowest third of all Trusts (according to the GMC trainee surveys).

The CEED pilot ran from October 2018 to October 2020, providing dedicated or 'ring fenced' time for education on a weekly basis for a minimum of 4 hours for the multi-professional team in the

ED.

An independent evaluation of the project was commissioned by HEE and delivered by Aston University (Academic Practice Unit), supported by the Royal College of Emergency Medicine.

Insert local information about EM training, multi-professional education and drivers for change.

2.2 Evidence for Change

Long-term Plan, benchmarking, utilisation rate, occupancy %, peer assessment, pathway redesign, skill mix shortage etc

An independent evaluation of the project delivered by Aston University (Academic Practice Unit), supported by the Royal College of Emergency Medicine is due to be released early 2021. Findings from the evaluation report have suggested that the strategy provides the following benefits:

- Improved or accelerated capability and clinical confidence of Emergency Department learners. 179 (83% of) learners stated that having a clinical educator in the emergency department improved their competence and confidence.
- Improved safety/decreased risk. There was support from all three stakeholder groups that patient safety has improved or significantly improved as a consequence of clinical educators – Learners (n=177, 82%), clinical educators (n=100, 91%) and managers (n=29, 88%).
- An improved recruitment profile. 90% managers surveyed expressed the opinion that the potential impact of having a CE on recruitment and retention of clinical ED staff was better or much better.
- An improved working environment that supports the wellbeing of staff. All three stakeholder groups expressed the clear opinion that wellbeing at work was improved or significantly improved by the clinical educator programme - Learners (n=152, 70%), clinical educators (n=106, 96%) and managers (n=26, 79%).
- Enhanced support for new staff including those from overseas. 90% of managers consider it very important or of some importance for CEs to support overseas trained staff with their development and training needs. Almost all clinical educators (n=95, 86%) considered it important or very important for them to support staff who are trained overseas with their development and training needs.

The evaluation demonstrated due to the clinical educator strategy, enhanced quality of education in the Emergency Department. 'The extra time afforded by the Clinical Educators to the learners enabled a greater depth of education to be provided, that was relevant and targeted to the learner, and expressed in the context of how this might be applied to patients'. Shop floor teaching is highly relevant and valued by learners. The strategy also supports progression with a variety of learner assessments, essential for demonstrating and supporting learner development and advancement through training stages. It was also noted that learners with identifiable training needs could be given extra support by the clinical educators.

Insert Local Data and Case -

2.3 Top 3 Project Objectives (look at local data to demonstrate)

1. **Improve educational environment leading to improvement in learner progression through training**
2. **Improve patient safety through improved clinical competence and confidence from staff**
3. **Improve staff recruitment and retention through improved wellness and demonstrated value for staff**

2.5 Proposal / Summary of Change *[What/How/Who/When?]* ***Please see Schedule A for supporting detail***

'Business needs' - service change, operationally, workforce, kit, support service impact ie Radiology, Pathology, Microbiology, other

Local input –

Permanent changes to current staffing levels to enact required changes if increased PA numbers within department.

2.6 Supporting Estate Plan *(if applicable)* ***Please see Schedule B for supporting detail***

N/A

2.7 IT Impact *(if applicable)*

N/A

2.8 Estate Procurement Impact *(if applicable)*

N/A

3. OPTIONS APPRAISAL

3.1 Option Appraisal Process

Describe what assessment criteria informed the exclusion or inclusion of options, led to the shortlist and recommendations:

[Text]

i) Do Nothing
ii) Fund Minimum
iii) Fund Maximum

Option 1 - Do Nothing

- This would involve providing no further funding to the role after the HEE funding envelope has closed. However, this would effectively reduce the current allotment of time attributed to education and remove the benefits gained during the pilot which cannot be sustained without continued funding.

Option 2 – Fund Minimum

- The trust would continue to provide the department with the amount of funding it was using to match fund the CEED pilot. This would reduce the current allotment of time to half of that provided during the pilot. It may maintain some benefits, but the evaluation strategy will more fully outline whether there is a requirement for a minimum amount of time for the strategy in order to provide benefits.
- Insert costing

Option 3 – Fund Maximum

- The trust would provide the department with the full amount of funding required to run the strategy as outlined in the pilot, making up the amount that would have bee provided by HEE through the pilot funding envelope.
- Insert costing – consider how many staff are in the department, how many are trainees/ students/ learners, and how much time is required to ensure all education obligations are fulfilled.

Recommended Option *(including the reason for this decision)*

Option 3 is recommended because this option ensures that the benefits from the pilot period are sustained and enhanced as the strategy is given sufficient resources

4. ECONOMIC CASE *(Financial & Non-Financial Benefits)*

Business cases should quantify the net change from existing run rate

4.1 Contracting

Commissioner/s impact, new work/service or existing? Where is the work coming from? Which commissioners? Letter of support?

4.2 Performance

*Are there any impacts on performance/ fines that the case will address? **be specific and quantify*

Look at local performance indicators

- Recruitment and retention
- Locum spendage
- NHS staff survey on wellbeing
- Local gmc survey / school survey results
- SI numbers
- Wait times
- Deanary surveys

4.3 Estates

Assumption, procurement strategy & timeline

N/A

4.4 Efficiency (CIP)

Quantify CIP benefits (< LOS, theatre time, cost saving)

See if there have been cost savings from reduced locum expenditure, increased ability to take on placements including medical trainees, ACP trainees, and PA trainees. See if there is any improvement in ED dashboard measures.

Are there any benefits of the case in your CIP Schedule: **Y / N** **£saving**

4.5 QIPP *(Quality, Innovation, Productivity & Prevention)*

Change of pathway, process, disinvestment, demand management

4.6 Risks

Financial, capital, commissioner, service & other

Patient Safety: The impact of the CEED pilot on risk and safety was explored in the evaluation. Participants confirmed that in their opinion risk is reduced and safety increased. At least one site noted that the clinical educator could focus on recommendations following serious untoward incidents, and thereby supporting the clinical staff to adopt new, often urgent, guidance. Quantifying the effect on adverse incident reporting is beyond the scope of the CEED evaluation, but this will be explored further in later phases of the study. Trusts could look at number of recurring SI's in department, learning shared from incidents etc.

Patient Flow: Many participants in the evaluation agreed that patient flow is not adversely affected by the CE programme. CEED pilot survey results show that both patient flow and wait times improved during CEED pilot.

Sustainability: This is may be an issue especially where clinical educators are employed beyond their normal working time. It is recommended that consultants be offered the opportunity to take on the role instead of time allocated to clinical care. This will have a knock on effect in possibly requiring an extra consultant post to cover this clinical time, however the benefits of retention to the consultant workforce outweigh the financial cost.

5. FINANCIAL CASE

5.1 Financial Case *(Please see Schedule C, D & E for supporting detail and table in Exec Summary)*

*How does this proposal deliver value for money and benefits financially **

5.1.1 Core financial assumptions:

5.1.2 Impact on balance sheet:

5.1.3 Cost/benefit analysis:

5.1.4 Impact on I&E:

5.1.5 Financial Metrics:

FINANCIAL METRICS	£
Income per £ of pay bill	
Cash flow	
NPV	

5.1.6 Optimism bias/sensitivity analysis:

5.1.7 Capital Summary:

Project Costs	SQM	SQM £	Total £
Sub-total estate/capital Cost		**£**	**£**
Consultants	-	-	£
Contractors	-	-	£
Other development costs	-	-	£
Communications	-	-	£
Standard Equipment	-	-	£
Specialist Equipment	-	-	£
Software	-	-	£
Project management costs	-	-	£
Sub-total project costs			**£**
Overall total cost			**£**

Strategic Maintenance related cost: £ / X% of investment

5.2 Commercial Case (if appropriate)

N/A

5.3 Financial Summary Conclusion:

6. MANAGEMENT CASE
A project group will oversee development of the case with a nominated Chair and project manager from the Trust Strategy team. The governance, delivery, monitoring and risk escalation will be co-ordinated by this group together with project and business plans. If the project is complex or high risk a Steering Group will be established so that governance is strengthened, as well as level of expertise.

Schedule	TIG & TEC Case Supporting Information
Schedule A	Demand v Capacity Analysis (supporting evidence)
Schedule B	Estate Plan & Timeline
Schedule C	Workforce Plan
Schedule D	Production Plan
Schedule E	Financial Plan
Schedule F	Impact Consultation

Note: The schedules above are required for TIG and TEC as supporting information however, not S&FC or Trust Board other than the recommended NPV

APPROVAL PROCESS

Internal Trust sign-off

Stage I *- upon completion of the case the following* ***mandatory*** *signatories are required. Signatories must be given at least 5 days before sign-off is needed to review the case appropriately.*

Stage II *- cases are then to be sent for approval to the required deadline date of the following committees/Boards (c2 weeks before the meetings):*

COMMITTEE / BOARD	FINANCIAL THRESHOLDS
Trust Investment Group (TIG) *Cases requiring capital / capital and revenue* *TIG Lease Sub-group*	**<£250k** *(revenue)* **<£1.5m** *(capital)* *To £50k*
Trust Executive Committee (TEC):	**£250k to £1m** *(revenue)* **& £1.5m - £2.5m** *(capital)* All revenue only cases to TEC
Strategy & Finance Committee (S&FC)	*Cases going forward to Trust Board*
Trust Board (TB)	**>£1m** *(revenue)* **& >£1.5m** *(capital – new schemes)* ***>£2.5m*** *(capital – schemes in capital plan)*

- *All cases with negative I&E impact in-year or over initial 12 months will only be approved in exceptional circumstances – CEO and CFO approval required.*
- *All revenue only cases should target an in-year revenue return on investment of 2:1, although all positive in-year return on investment will be considered by exception.*
- *All cases with negative NPV will only be approved in exceptional circumstances if in line with our strategy – CEO and CFO approval required.*

- *Capital cases should aim to repay initial capital investment by 3 times over the initial 10 years or life of the asset, whichever is sooner. Cases with a longer return period will be considered by exception.*

APPROVAL **To be signed-off in the order shown*

Stage I - Divisional Sign-off	**Name and Date**
DCD / DDO	
Division Board Date Signed-off	
Stage II - Corporate Sign-off *(in order shown)*	**Name and Date**
Director of Contracting / Commercial Development *(as appropriate)*	
Director of I&MT *(when appropriate)*	
Director of Estates & Capital Development *(if Capital required)*	
Deputy Director of Strategy	
Director of Finance	
Executive Sign-off	**Name and Date**
Sponsoring Executive	
Chief Finance Officer	
Trust Investment Group	Date:
Trust Executive Committee	Date:
Trust Board	Date:

Schedule C

WORKFORCE PLAN

Summary table (current v request by band and WTE):

Consultant Job Plan if part of the case:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM						
PM						
Evening/ 3rd						
Trust Private Session						

Signed-off HR Business Partner: Name: **Date:**

Schedule E

FINANCIAL PLAN

Gavin - standardised NPV template for all DFMs

Signed-off DFM: Name: **Date:**

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Schedule F

IMPACT CONSULTATION

Service	Specific Service/s Consulted	Core Feedback	Service Lead	B/Case Revenue £	B/Case Capital [Y / N]
Surgery					
Cancer					
Theatres					
Critical Care					
Specialist Medicine					
Emergency Medicine					
Medicine for Older People					
Ophthalmology					
Pathology					
Psychiatry/Psychology					
Child Health					
Women & Newborn					
Support Services: Pharmacy Physio Medical Physics RT Other?					
Cardiovascular & Thoracic					
Neurosciences					
Trauma & Orthopaedics					
Radiology					
Contracting					
Finance					
Commercial					
IM&T					
Estates					
Other					

BUSINESS CASE CONSULTATION:

DDOs are kept advised of pipeline business cases monthly via the TIG Report produced by the Strategy Team, to devolve this to their teams and ensure appropriate representation is then part of the development at the right time.

The Trust structure for consultation on cases and for communication includes:

- *Trust Strategic Development Meeting (monthly) chaired by the Deputy Director of Strategy*
- *Trust Capacity Group Meetings (weekly) chaired by the Deputy Chief Operating Officer*
- *Divisional Board Meetings chaired by DDO*
- *Divisional Director of Operations Meetings (DDOs) chaired by the Deputy Chief Operating Officer*
- *Divisional Clinical Director Meetings (DCDs) chaired by the Chief Executive Officer*
- *Care Group and Operational Meetings chaired by CGM or nominated representative*
- *Project team meetings chaired by nominated representative subject to the scale of the case*
- *Other Trust meetings and governance structures*

Equally the project team for a business case is responsible for engaging across Trust services and externally if appropriate to ensure all impacts of the case have been appraised, as well as included within the case if needed. These are recorded in the table above.

Appendix 6: GROW Document to support CE implementation

Goal	Reality	Options	Way forward
• Would recommend the role of CE to all Emergency Departments • and that a minimum of 8 hours of CE time/week in an average sized department.	Shop floor teaching is under pressure from service demand and workforce issues. Finding additional funding and ring-fencing educational time within existing job plans is problematic because funding of and accounting for educational activity is unclear.	Develop a model of funding for education and training that describes: • How many PAs are available in each ED • What educational activities should be undertaken and by who • How such activity will be monitored and quality assured • How this activity should be job planned.	Agree way forward in discussion with RCEM and HEE Will require Trust/end user engagement
Promotion of the CE roles of shop floor teaching, pastoral care and supporting staff.	That it is possible to improve the quality of shopfloor teaching. That the pastoral supportive role is highly valued and needed.	That RCEM promote the value of shop floor teaching (a/a) and showcase how it can be best delivered by use of CPD/ training the trainers as part of an overall strategy to support trainers. That additional training in helping staff in difficulty and supporting wellbeing be made available	Agree a way forward with RCEM as to how Trainers are represented and educated in College structure. Establish what HEE can provide and what RCEM/Trusts need to provide.
Expansion of the CE teaching team to include non-consultant medical staff and ACPs.	The CE needs to have demonstrated the relevant knowledge and competence to the level needed of the learner's curriculum and the ability to teach. These criteria (which are currently met by ED consultants with FRCEM) need to	Development of an educational model that describes where CEs fit, what an expanded team could look like, and how knowledge/competence/ability to teach/knowledge of curricula could be verified.	Discussion with RCEM about an educational structure/model for EDs

	defined for all future CEs		
That teaching multi professional learners is supported	Multi professional learning aids patient care, patient safety and team building.	This is an opportunity to put interprofessional teaching and learning on a more secure footing by specifying what is required by the learner's curriculum and being satisfied that the CE can meet those requirements.	Discussion with HEE and RCEM on how this model can supported.
Sustainability and expansion of the CE role	The initial and ongoing funding by HEE has been key in establishing the CE role Once this funding stops the role may not be supported and not initiated in trusts that weren't involved in the study.	Regional collaboration with multi-professional Deaneries and the EM schools could allow release of time for the CE role HEE and the EM schools could define the importance of the CE role and prioritise this over other funded roles	Encourage local Multi-professional deaneries, EM schools and trust to discuss opportunities to ensure that the CE role is fully accepted and integrated in the educational plan of all EDs

Appendix 7 - Evidence used in this report

1. CEED Early Survey

1.1 CEED Survey 1 (Phase 1, A3)[2] – abridged findings.

Online Survey (15th January 2020 – 28th February 2020) of CEED stakeholders (CEs, learners and manager/clinical leads).
During this early (phase 1) survey the potential benefits of clinical educators were mostly explored. The survey was designed to present participants with relevant questions depending on their individual answers. In this manner not all questions were asked of all respondent groups. Question denominators will therefore vary.

1.1.1 Respondents

291 participants submitted responses:
- 187 (64%) Learners/others
- 65 (22%) Clinical Educators
- 39 (13%) Managers (Clinical Directors/Manager of emergency department)

The Learners/others included:
- 78 Medical trainees
- 55 Medical non-trainees
- 29 ACP (nurse)
- 12 ACP (paramedic)
- 9 Nurses
- 3 Physician Associates
- 1 Pharmacist

1.1.2 Patient flow

When asked the question: "Overall, what do you think the effect of having the Clinical Educator in the Emergency Department has had on the **patient flow** of your department:"

1.1.2.1 Learners

- 90 (48%) replied better or much better
- 79 (42%) no change

[2] The designation A1 to A9 signify the Activities scheduled within the approved evaluation protocol. See Appendix 8.

1.1.2.2 Clinical Educators

- 39 (60%) replied no change
- 24 (37%) better or much better

1.1.2.3 Managers

- 19 (49%) replied better or much better
- 17 (44%) no change

1.1.3 Quality of care

When asked the question: "Overall in your department, how has having a Clinical Educator impacted on the quality of care provided to the patients:"

1.1.3.1 Learners

- 157 (83%) replied better or much better
- 25 (13%) no change

1.1.3.2 Clinical educators

- 45 (85%) replied better or much better
- 9 (14%) no change

1.1.3.3 Managers

- 32 (82%) replied better or much better
- 6 (15%) no change

1.1.4 Impact on working environment

When asked the question: "Do you think that the Clinical Educator role has an impact on the working environment and potentially affects the likelihood of staff wanting to work there:"

1.1.4.1 Learners

- 164 (88%) replied better or much better
- 21 (11%) no change

1.1.4.2 Clinical educators

- 59 (92%) replied better or much better
- 5 (8%) no change

1.1.5 Safety of patient care

When asked the question: "In your opinion what is the potential impact of having a Clinical Educator in the Emergency Department on the safety of patient care:"

1.1.5.1 Learners

- 163 (88%) replied better or much better
- 21 (11%) no change

When asked the question: "In your opinion what impact has having a Clinical Educator in the Emergency Department had on the safety of patient care:"

1.1.5.2 Clinical educators

- 53 (81.5%) replied better or much better
- 12 (18.5%) no change

1.1.5.3 Managers

- 37 (95%) replied better or much better

1.1.6 Impact on adverse incident reporting

When asked the question: "In your opinion, will having a Clinical Educator present in the Emergency department have an impact on the frequency of adverse incidents reporting:"

1.1.6.1 Learners

- 82 (45%) replied decreased or considerably decreased
- 80 (43%) no change
- 24 (13%) increased or considerably increased

When asked the question: "In your opinion does the presence of a Clinical Educator in the Emergency Department have an impact on the frequency of adverse incidents reporting:"

1.1.6.2 Clinical educators

- 37 (57%) replied no change
- 12 (18.5%) decreased
- 4 (6%) increased or considerably increased

1.1.6.3 Managers

- 18 (46%) replied no change
- 4 (10%) decreased or considerably decreased
- 1 (3%) increased

1.1.7 Non-consultant medical clinical educators

When asked the question: "In your opinion could staff other than an Emergency Department consultant deliver the teaching role of a clinical educator:"

- 118 (63%) learners replied yes
- 39 (60%) clinical educators replied yes
- 21 (54%) managers replied yes

Of these, when asked who could deliver the training (multiple answers allowed):

1.1.7.1 Learners

- 111 (94%) replied registrar
- 70 (59%) advanced nurse practitioner
- 38 (32%) advanced clinical practitioner – paramedic
- 34 (29%) advanced clinical practitioner – pharmacist

1.1.7.2 Clinical educators

- 35 (90%) replied registrar
- 23 (59%) advanced nurse practitioner
- 13 (33%) advanced clinical practitioner – pharmacist
- 12 (31%) advanced clinical practitioner – paramedic

1.1.7.3 Managers

- 20 (95%) replied registrar
- 15 (71%) advanced nurse practitioner
- 8 (38%) advanced clinical practitioner – paramedic
- 4 (19%) advanced clinical practitioner – pharmacist

1.1.8 Clinical educator time in the Department

When asked the question: "Do you think that clinical educators are required in the emergency department all of the time:"

- 106 (57%) learners replied yes - there was a range of free text responses.

When learners were asked their opinion relating to the provision of clinical educator time to meet the needs of learners, by their department:

- 78 (42%) replied sufficient (time was provided)
- 64 (34%) insufficient
- 44 (24%) unsure.

Responses to options for the optimal length of time to have a clinical educator available were equivocal. The most frequently selected option selected by learners was:

- 80 (43%) "should be available on all shifts."

All three groups agreed that CEs should ideally be available on all the ED shifts however the practicalities to this happening was also commented upon by all the three groups.

1.1.9 Clinical educator activity

When asked the question: "What activities do you think a Clinical Educator should be doing during their Clinical Educator time" (multiple answers allowed):

1.1.9.1 Learners

- 179 (96%) replied enabling learner to complete workplace-based assessments
- 177 (95%) bedside teaching
- 153 (82%) simulation sessions
- 96 (51%) classroom teaching sessions.

1.1.9.2 Clinical educators

- 63 (97%) replied bedside teaching
- 61 (94%) enabling learner to complete workplace-based assessments
- 61 (94%) simulation sessions
- 41 (63%) classroom teaching sessions.

1.1.9.3 Managers

- 38 (97%) replied bedside teaching
- 35 (90%) enabling learner to complete workplace-based assessments
- 35 (90%) simulation sessions
- 16 (41%) classroom teaching sessions.

The majority of CE activity seems to be a 50-50 split on teaching and assessments.

The majority of teaching sessions seems to be one to one (more than 70% according to learners) rather than group based.

57% of clinical educators believe that training work has migrated towards them from other trainers.
100% of clinical educators believe that they are fairly accessible or easily accessible to learners.
92% of clinical educators believe that learners are fairly accessible or easily accessible to them.

1.1.10 Multidisciplinary education sessions

116 (62%) of learners stated they had not been exposed to a multidisciplinary education session led by a clinical educator, 71 (38%) had been exposed.

66 (93%) of learners taking part in a multidisciplinary group taught by a clinical educator reported that this was beneficial.
80% of clinical educators state they provide multidisciplinary teaching sessions, and 79.5% support this role.
63% of clinical educators consider it very important for CEs to support overseas trained staff with their development and training needs; 90% of managers consider this very important or of some importance.

1.1.11 Deploying clinical educators in other clinical specialties

When asked the question: “Would deploying a clinical educator in other clinical specialties (e.g. acute medicine, surgical ward) help improve working condition or clinical care in that area;”

- 171 (92%) learners replied yes.
- 59 (91%) clinical educators replied yes.
- 32 (82%) managers replied yes.

When asked to select the most appropriate clinical area other than emergency medicine to have clinical educators:

- 119 (70%) learners selected acute medicine
- 48 (83%) clinical educators selected acute medicine
- 26 (84%) managers selected acute medicine.

1.1.12 Educational training of clinical educators

When asked the question: “In your opinion do you think clinical educators should hold an educational qualification:”

1.1.12.1 Learners

- 91 (54%) replied yes
- 73 (43%) no.

1.1.12.2 Clinical educators

- 34 (56%) replied no
- 22 (36%) yes.

60.5% of managers hold the opinion that CEs require specific education training and credentials.

Respondents were asked what level of clinical education is essential for clinical educator? Of five options presented:

- 140 (79%) learner selected ‘the educator is accredited to the Fellowship of the Royal College of Emergency Medicine’; 78% of clinical educators selected this option and 87% of managers selected this option.
- 119 (67%) the educator has ALS (advanced life support) training; 59% of clinical educators selected this option and 64.5% of managers selected this option.

1.1.13 Competence and confidence

When asked the question: “Does having a Clinical Educator potentially improve your competence and confidence:”

- 164 (88%) learner respondents replied yes.
- 100% of clinical educators and 90% of managers report that clinical educators improve or significantly improve the competence and confidence of ED staff.

1.1.14 Wellbeing of staff

- 94% of CEs and 87% managers agree that CEs have the potential to impact on the wellbeing of staff.

1.1.15 Recruitment and retention of ED staff

- 90% managers expressed the opinion that the potential impact of having a CE on recruitment and retention of clinical ED staff was better or much better.

1.1.16 CE supporting role for learners

- 91% of learners indicate that CEs have a supporting role for learners, more than clinical education.
- 78.5% of CEs state they have provided supporting role beyond teaching.
- 92% of managers support this role.

1.1.17 Additional PAs?

- 58.5% of clinical educators state they have taken additional PAs to undertake the CE role. They are equivocal about whether this is sustainable in the future.

1.1.17 Future funding of clinical educators

- Managers – likelihood of funding internally by Trust of CE after the pilot = 15.8% (yes), 15.8% (no); 65.8% unsure; 2.6% other. Although 66.7% would strongly support for this role to continue.
- 86% of clinical educators think their Trust should fund CEs long-term.

2. CEED Late Survey

2.1 CEED Survey 2 (Phase 3, A9) – abridged findings.

Online Survey (2nd July 2020 – 4th August 2020) of CEED stakeholders (CEs, learners and manager/clinical leads).
In this latter survey the actual benefits of clinical educators, as reported by the participants was explored - retrospective opinion. The survey made it clear whether questions related to pre-COVID-19 or peri-COVID-19 periods. Denominators vary according to question routing.

2.1.1 Respondents

359 participants submitted responses:

216 (60%) Learners/others including:

- 99 Medical trainees
- 44 Medical non-trainees
- 47 ACP (nurse)
- 7 ACP (paramedic)
- 1 ACP (physiotherapist)
- 13 Nurses
- 5 Other

110 (31%) Clinical Educators

33 (9%) Managers (Clinical Directors/Manager of emergency department) including:

- 14 ED Manager
- 11 Clinical Directors of the emergency department
- 8 others (unidentified)

2.1.2 Patient flow – pre-COVID-19

2.1.2.1 Learners

When asked the question: "What do you think the effect of having the Clinical Educator in the Emergency Department has had on your ability to support patient flow through the department:"

- 124 (57%) replied improved or significantly improved
- 87 (40%) did not change.

2.1.2.2 Clinical educators

When asked the question: "Overall, what do you think the effect of having the Clinical Educator in the Emergency Department has had on the patient flow of your department:"

- 58 (53%) replied did not change
- 52 (47%) improved or significantly improved.

2.1.2.3 Managers

When asked the question: "What do you think the effect of having the Clinical Educator in the Emergency Department has had on the overall patient flow of your department:"

- 16 (49%) replied did not change
- 15 (45.5%) improved or significantly improved.

2.1.3 Quality of care / clinical decision-making skills – pre-COVID-19

2.1.3.1 Learners

When asked the question: "How has having a Clinical Educator impacted on the quality of care YOU provide to patients under your care in the Emergency Department:"

- 180 (83%) replied improved or significantly improved.

2.1.3.2 Clinical educators

When asked the question: **"**Overall in your department, how has having a Clinical Educator impacted on patient care provided by staff in the department:"

- 105 (95.5%) replied improved or significantly improved.

2.1.3.3 Managers

When asked the question: **"**Overall, how has having a Clinical Educator impacted on the clinical decision-making skills of staff managing patients in the Emergency Department:"

- 30 (91%) replied improved or significantly improved.

2.1.4 Staff morale - pre-COVID-19

Learners were asked the question: "In your opinion what impact has having a Clinical Educator in the Emergency Department had on the overall morale of staff:"

- 174 (81%) replied improved or significantly improved.

2.1.5 Impact on staff recruitment or retention - pre-COVID-19

2.1.5.1 Learners

When asked the question: "In your opinion what do you think was the impact of having a Clinical Educator in relation to staff retention in the Emergency Department:"

- 117 (54%) replied improved or significantly improved
- 68 (31.5%) did not change
- 31 (14%) no opinion.

2.1.5.2 Clinical educators

When asked the question: "Based on your experience, what effect do you think the Clinical Educator role has had on recruitment and retention of staff:"

- 63 (57%) replied improved or significantly improved
- 36 (33%) did not change.

2.1.6 Impact on patient safety - pre-COVID-19

2.1.6.1 Learners

When asked the question: "In your opinion what impact has having a Clinical Educator in the Emergency Department had on the safety of the patients you care for:"

- 177 (82%) replied improved or significantly improved.

2.1.6.2 Clinical educators

When asked the question: "What impact has having a Clinical Educator in the Emergency Department had on the safety of patient care:"

- 100 (91%) replied improved or significantly improved.

2.1.6.3 Managers

When asked the question: "What impact has having a Clinical Educator in the Emergency Department had on the safety of patient care:"

- 29 (88%) replied improved or significantly improved.

2.1.7 Impact on frequency of adverse incident reporting - pre-COVID-19

2.1.7.1 Learners

When asked the question: "In your opinion what impact has having a Clinical Educator present in the Emergency Department had on the frequency of adverse incidents reporting:"

- 89 (41%) replied don't know
- 76 (35%) no change
- 32 (15%) decrease or considerably decrease
- 19 (9%) increase or considerably increase

2.1.7.2 Clinical educators

When asked the question: "In your opinion what impact has the presence of a Clinical educator in the Emergency Department had on the frequency of adverse incidents reporting:"

- 63 (57%) replied no change.

2.1.7.3 Managers

When asked the question: “In your opinion what impact has the presence of a Clinical educator in the Emergency Department had on the frequency of adverse incidents reporting:”

- 17 (51.5%) replied did not change
- 11 (33%) improved.

2.1.8 Impact on wellbeing at work - pre-COVID-19

2.1.8.1 Learners

Learners were asked the question: “What impact has having a Clinical Educator at the Emergency Department had on your wellbeing (at work):”

- 152 (70%) replied improved or significantly improved.

2.1.8.2 Clinical educators

Clinical educators were asked: “What was the effect of your role as a Clinical Educator in the Emergency Department of the wellbeing of the learners:”

- 106 (96%) replied improved or significantly improved.

2.1.8.3 Manager

Managers were asked: “Did having a Clinical Educator at the Emergency Department improve the wellbeing of staff:”

- 26 (79%) replied yes.

2.1.9 Provision of clinical educator time - pre-COVID-19

2.1.9.1 Learners

Learners were asked about the proportion of their training time spent with clinical educator.

- 175 (81%) replied that they would like to see an increase.

Learners were asked: **“**In your opinion has your department provided you with sufficient time to meet your learning needs:”

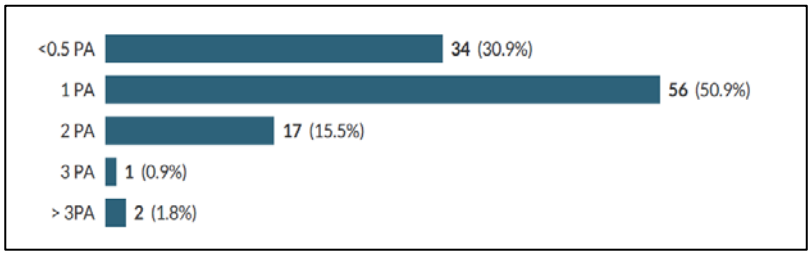
- 120 (56%) replied that they had been given sufficient time.

Learners were asked: “Do you want more or less time with clinical educator:”

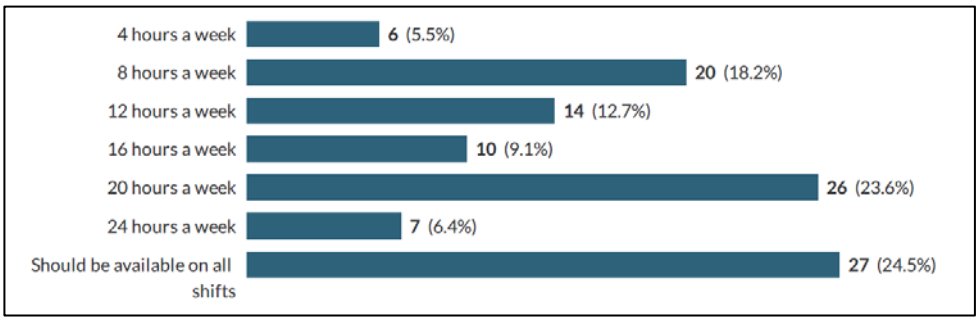
- 199 (92.1%) replied more time.

2.1.9.2 Clinical educators

Clinical educators were asked: “How much time, in terms of PA allocation were you allocated to carry out your Clinical Educator duties?" The response is shown graphically below:



Clinical educators were also asked: “Based on your experience, what is the optimal length of time to have a Clinical Educator available in the department (whole department provision)?” The response is shown graphically below:



In terms of taking additional PAs to undertake the role of clinical educator, 57 (52%) had taken additional PAs and 53 (48%) had not.

Clinical educators who had taken on additional PAs were asked: “If you have taken on more PAs, is this sustainable for the future:”

- 50 (45.5%) replied yes
- 12 (11%) no
- 48 (44%) not applicable.

Clinical educators were asked about their preference for future working arrangements in relation to their existing contracts.

- 53 (48%) preferred additional working time
- 51 (46%) preferred their clinical educator role to be included within current working time.

2.1.10 Activities of clinical educators - pre-COVID-19

2.1.10.1 Learners

Learners were asked to rank the value of types of teaching sessions. High values (rank position one or two) were:

- 150 (69.5%) shopfloor teaching
- 141 (65%) workplace-based assessments
- 97 (45%) simulation sessions
- 82 (38%) classroom teaching

2.1.10.2 Clinical educators

Clinical educators were asked: during your time as a clinical educator was educational work (from other colleagues) transferred over to you?

- 70 (64%) replied no
- 40 (36%) yes.

Duties delegated to clinical educators from other colleagues were most often reported as workplace-based assessments and ESLEs.

Clinical educators were asked to rank the value of types of teaching activities. High values (rank position one or two) were:

- 78 (71%) workplace-based assessments
- 78 (71%) shopfloor teaching
- 70 (64%) additional support for staff who may be struggling with their role
- 67 (61%) mentoring

98 (89%) of clinical educators confirmed that they had provided a supporting role beyond teaching. These roles in particular included: career progression advice (82, 84%) and pastoral role (82, 84%).

2.1.10.3 Managers

Managers were asked: “Do you think that Clinical Educators have a supporting role for learners with their training and development within the department? By supporting role we mean more than clinical education:”

- 31 (94%) replied yes.

2.1.11 Multi-professional educational sessions - pre-COVID-19

2.1.11.1 Learners

100 (46%) of learner participants reported that they had participated in multi-professional educational sessions led by a clinical educator.

When asked the question: “What do you think was the value being taught as part of a multi-professional group taught by a Clinical Educator:”

- 96 (99%) replied beneficial or extremely beneficial.

2.1.11.2 Clinical educators

88 (80%) of clinical educators confirm that they provided multi-professional teaching sessions at their Trust. 75% of these respondents described the value of multi-professional teaching as highly valuable or extremely valuable.

When asked the question: “How comfortable were you with multi-professional teaching:”

- 82 (75%) replied comfortable or extremely comfortable.

2.1.11.3 Managers

30 (91%) of managers confirm that clinical educators should provide education and training for the emergency department multi-professional team.

2.1.12 Support for overseas trained staff – pre-COVID-19

Clinical educators were asked: “How important in your opinion is it to have a Clinical Educator to support overseas trained staff with their development and training needs (e.g. CESR pathway):”

- 95 (86%) replied important or very important.

2.1.13 Training and skills of clinical educators - pre-COVID-19

2.1.13.1 Learners

- 190 (88%) expressed the opinion that the clinical educator was sufficiently trained to carry out their role.

2.1.13.2 Clinical educators

Clinical educators were asked to rank their training needs. Those considered high importance by the respondents (ranked first or second) are:

- 77 (70%) how to help staff in difficulty
- 74 (67%) how to look after a learners well-being
- 69 (63%) mentoring
- 67 (61%) clinical teaching skills
- 65 (59%) how to give effective careers advice and coaching
- 65 (59%) pastoral care.

Clinical educators were asked to describe new skills or opportunities that had been given them in their role. The most frequently reported were ‘experience in teaching and opportunities for CPD.’

2.1.14 Non-consultant clinical educators - pre-COVID-19

2.1.14.1 Clinical educators

Clinical educators were asked: "In your opinion could staff other than an Emergency Department medical consultant deliver the teaching role of a Clinical Educator:"

- 64 (58%) replied yes
- 46 (42%) no.

When asked who could deliver the teaching the top two replies were:

- 55 (86%) EM registrar
- 46 (72%) ACP (nurse).

2.1.14.2 Managers

Managers were asked: "In your opinion could staff other than an Emergency Department medical consultant deliver the teaching role of a Clinical Educator:"

- 16 (48.5%) replied yes
- 15 (45.5%) no.

When asked who could deliver the teaching the top two replies were:

- 15 (94%) ACP (nurse).
- 11 (69%) EM registrar

2.1.15 Confidence and competence - pre-COVID-19

2.1.15.1 Learners

- 179 (83%) of learners stated that having a clinical educator in the emergency department improved their competence and confidence.

2.1.15.2 Clinical educators

Clinical educators were asked the question: "In your opinion what effect did the implementation of a Clinical Educator have on staff clinical ability:"

- 99 (90%) replied improved or significantly improved.

Clinical educators were also asked: "What affect did having a Clinical Educator in the Emergency Department have on enabling clinical staff to effectively manage more complex patients:"

- 98 (89%) replied improved or significantly improved.

2.1.16 Influence of COVID-19 on staff rotation/contract in the emergency department

A change in the original duration of their rotation/contract was reported by:

- 42 medical trainees
- 6 medical non-trainees
- ACP nurses
- others

2.1.17 Influence of COVID-19 on ED attendance numbers

2.1.17.1 Learners

When learners were asked the question: "What was the impact of COVID-19 in terms of ED attendance numbers in the past couple of months, in comparison to the usual attendance numbers before 23rd March (before COVID-19):"

- 202 (96%) replied decrease or significant decrease in emergency attendance

2.1.17.2 Clinical educators

- 104 (96%) of clinical educators agreed that emergency attendance had decreased or significantly decreased due to the pandemic.

2.1.17.3 Managers

- 33 (100%) of managers agreed that emergency attendance had decreased or significantly decreased due to the pandemic.

2.1.18 Influence of COVID-19 on continuity of clinical educator role

2.1.18.1 Clinical educators

- 76 (69%) of clinical educators confirmed their role as a clinical educator continued during the pandemic.

2.1.18.2 Managers

- 28 (85%) of managers confirmed that the role of the clinical educator continued during the pandemic.

2.1.19 Impact of COVID-19 on contact time and activities with or by a clinical educator

2.1.19.1 Learners

When learners were asked the question: "How did the pandemic impact your contact time with a Clinical Educator:"

- 112 (53%) replied decreased or considerably decreased
- 71 (33.5%) no change

Learners reported a reduction (decrease, significant decrease or cancellation) of the following activities due to COVID-19.

- 138 (67%) simulation sessions
- 120 (58%) in situ simulation
- 105 (50%) shopfloor teaching
- 95 (46%) workplace-based assessments

The most frequently recommended clinical educator activities by learners were:

- workplace-based assessments
- shopfloor teaching
- simulations.

Learners also recommended that clinical educators are made accessible to all of those who need them equally and fairly for teaching and assessment. According to learners, where clinical educators provided teaching via an online platform (reported by 96, 45.5% of respondents), the most valuable platforms (rank position 1 or 2) were:

- 56 (30%) Zoom
- 41 (22%) Microsoft Teams

2.1.19.2 Clinical educators

When clinical educators were asked the question: "During the pandemic if the Clinical Educator role continued, how did this impact the contact time you had to carry out your Clinical Educator role on the shopfloor?"

- 47 (43%) replied they had about the same time on the shopfloor for their role
- 24 (22%) had less time on the shopfloor for their role
- 13 (12%) had more time on the shopfloor for their role.

Clinical educators reported a reduction (decrease, significant decrease or cancellation) of the following activities due to COVID-19:

- 70 (64%) simulation sessions
- 60 (54.5%) in situ simulation
- 45 (41%) workplace-based assessments
- 44 (40%) shopfloor teaching

- 63 (57%) of clinical educators reported that they delivered COVID-19 specific training to learners and redeployed staff.

Training sessions provided by clinical educators, as reported by learners, as a consequence of COVID-19 included PPE training and how to carry out CPR with PPE on.

According to clinical educators 43 (39%) delivered teaching via online platforms. The most valuable platforms (rank position 1 or 2) were:

- 28 (65%) Zoom
- 25 (58%) Microsoft Teams

2.1.20 Impact of COVID-19 on the value of clinical educators

2.1.20.1 Learners

When asked the question: "In your opinion what impact did the COVID-19 pandemic have on the value of having a Clinical Educator in the department:"

- 91 (42%) replied did not change
- 64 (30%) decreased or significantly decreased
- 61 (28%) increased or significantly increased

2.1.20.2 Clinical educators

Clinical educators were asked the question: "In your opinion, to what extent did the pandemic affect the need for having you in your role as a Clinical Educator:"

- 47 (43%) replied did not change
- 44 (40%) increased or significantly increased
- 19 (17%) decreased or significantly decreased.

2.1.20.3 Managers

Managers were asked the question: "In your opinion, during the pandemic how important was having a Clinical Educator in the emergency department:"

- 26 (75%) replied important or extremely important.

2.1.21 Future funding and support of clinical educators

2.1.21.1 Clinical educators

Clinical educators were asked: "In your opinion how likely is it that the Clinical Educator role in your Emergency Department will be funded by your Trust after the pilot:"

- 48 (44%) replied likely or very likely
- 34 (31%) don't know
- 28 (25.5%) unlikely or very unlikely.

2.1.21.2 Managers

- 31 (94%) of managers confirmed they would support the continuation of the role and post and ongoing provision of clinical educators in the emergency department.
- Of these managers 22 (67%) would support the future funding of this role.

3. CEED SSIs with Type 1 (principal) sites

Phase 3 A7 CEED Interviews. With clinical educators, peri-COVID-19.
Six interviews during the period 7/4/20 to 24/4/20 (HS).

Please note these are the verbatim or summary comments of the participants and not the opinions or recommendations of the report authors.

3.1.1 **Major changes in ED**: Decrease in Non-Covid patient number up to 50% in some areas but increase in very ill patients (probable Covid), rarely minor injuries. Altered structure of ED to create zones for separate Covid and Non-Covid patients.

3.1.2 **Staff** sickness up to 30% in some areas, some redeployed (ICU). Some ED's have been allocated more junior doctors and Registrars to cover also non-medical learners from University. Normal rotations have stopped.

3.1.3 Positive impact on general **patient flow** in the hospitals. Pre-Covid ED pressures at peak times and seasons affects patient flow. *"…because the hospital is full of patients and it has a knock-on effect on the ED and we take the brunt of that which is a barrier to education."*. *"If current flow in ED can be maintained this will enhance methods of education …"*.

3.1.4 Generally, all training and exams cancelled/paused by Trusts/Deanery causing trainee disruption, (some possibility of restarting in future using on-line facilities) but role of CE continues and Programmed Activity (PA) time maintained. CE's generally doing less 'formal' training.

3.1.5 Some sites continuing education in ED 'as normal'. Other areas Mini-Cex, CBD and WBA have stopped. Some have chosen to continue despite guidance from Trust/Managers.

3.1.6 Generally good use of CE time for 1-to-1 shop-floor teaching, e.g. CBD, WBA, Simulation particularly for PPE training across MDT; donning and doffing and ESLE's. Some areas teaching in small groups. Good use of WhatsApp groups and on-line discussion groups e.g. ZOOM at some sites. Plus supporting struggling learners to meet learning needs, induction for new staff but all variable in content in different areas. Have *"… time to function …"*. Requires additional planning time.

3.1.7 Focus is on the needs of the learners and anticipated training; learners are requesting topics.

3.1.8 PA's have been altered for some CE's since Covid to meet clinical needs, but time for learners maintained.

3.1.9 CE role is a significant benefit, but working hours are in addition to normal. Sometimes use own clinical time for education.

3.2 Opinions:

3.2.1 Role of CE is very **valuable** though challenging and may have to be curtailed if COVID-19 worsens.

3.2.2 Two participants reported things much better than normal for CE's with Covid. Pre-Covid difficult to maintain teaching time and reluctance to 'pull' juniors away from clinical work to teach them.

3.2.3 In general staff morale good but require additional support psychologically to cope with raised levels of anxiety and fear re Covid-19. CE role important in providing pastoral support to colleagues and trainees. Trusts are generally supportive and providing on-line resources to support staff. Wellbeing Teams helpful. Staff concerns around PHE guidance on PPE in some areas, feel unsafe. Fears of how ED's will manage a 2nd wave.

3.2.4 Concerns over numbers of sick patients NOT attending A&E possibly out of fear creating build-up of illness in communities.

3.2.5 Flexibility needed in CE role to meet the current needs both in planning teaching and ED management. *"Feels need to sell the role …".*

3.2.6 Feel role will be at risk in the future possibly due to funding.

3.2.7 Priority to support students through very unusual situations and challenges to anticipated training and pastoral support. College and GMC agree it's a *"… strange time."*.

3.2.8 *"Need to see education in more holistic terms, not just facts. Medicine is an art not a science."*.

3.2.9 There has been an overestimation of the situation re Covid in hospitals in some areas. More clinicians than patients.

3.3 Recommendations (verbatim / as expressed by the participants):

3.3.1 CE role should **continue**, (unless Covid demands become greater priority for staffing in ED). Feel useful and **valued.**

3.3.2 Guidance from HEE needed on future of training and Covid, many lost hours of training.

3.3.3 Current changes to teaching are beneficial for learners, especially 1-to-1 shop-floor events and should continue. Flexibility and innovation needed.

3.3.4 Some feel CE additional hours to current consultant role could risk 'burn-out' to CE's. Trusts should incorporate CE hours into working hours, not in addition.

3.3.5 Need consultant on the shop floor at peak times, free to teach and support juniors.

3.3.6 Need clarity on use of PPE from PHE as getting mixed messages.

3.3.7 Would value info about how other CE's are managing and delivering teaching programmes.

4. CEED SSIs with Type 2 (non-principal) sites

- Phase 3 A7 CEED Interviews. With clinical educators, peri-COVID-19.
- 13 interviews during the period 11/5/20 to 10/7/20 (HS).

Please note these are the verbatim or summary comments of the participants and not the opinions or recommendations of the report authors.

4.1 Experiences:

4.1.1 ED in 2 zones- Covid/non- Covid but gradual changes into *"… the new normal…"*. Covid patient numbers dropping, Non-Covid continue to increase.

4.1.2 Generally low staff sickness, all shifts covered. Staff sometimes pulled in from other areas. Staff in some areas caught Covid.

4.1.3 **More time** for trainees continues due to low patient numbers and **improved patient flow** but can limit teaching opportunities.

4.1.4 Some CE's also support **formal teaching** too. Formal training has widely recommenced, frequently on-line. Clear **variation of teaching** events across sites.

4.1.5 Most report little change to **shop-floor** teaching since Covid, shop-floor teaching maintained; *"… bread and butter teaching …"*. Sign offs maintained eg ARCP, portfolios or now restarted after a pause. **PPE** training continues by CE supported by others, plus Covid related disorders and procedures.

4.1.6 CE's have role in teaching or support of many **other professionals** eg ACP, nurses, non-trainees, ENP's, GP's, TAP's, Physician Associates some just in-house, others open up training to large numbers on line. One CE includes ALL ED staff in training even admin staff for ED Quiz.

4.1.7 CE role has aided **recruitment,** CESR route - aids career progression and recruitment. CE role *"More likely to attract and retain trainees …"*.
CE feels role may aid **staff retention**, but *"… difficult to measure this …"*. Previous reliance on locums in ED - now reducing, but one site has specific locum training.

4.1.8 ED teaching **supported by others** in team e.g. non-patient facing staff.

4.1.9 **CE role was paused** for few sites. Occasional changes made to PA's by Trust and some CE's have changed.

4.1.10 Covid has affected **nurse training** and their continued presence in ED. Some nurse training in ED has stopped, some moved into other zones, and some ACP training stopped; varies at different sites. Some sites report continued teaching sessions for student nurses despite all nurse training suspended till September. Difficult to retain nurses in ED, so trying to involve more in ED.

4.2 Opinions:

4.2.1 CE role clearly **valued** with mainly **positive feedback** from learners, colleagues, managers and some Trusts despite variation of what is being offered to trainees. *"… if role stays will be very significant for training …"*. Hope value of role can be demonstrated, and evidence supports it.

4.2.2 It's clear that Covid generally has had a **benefit to teaching** for CE's and encouraged more organised teaching, some on-line. *"Possibly CE role more useful in Covid than pre-Covid …"*. **Some CE's stopped** role for couple of months as perceived greater clinical need in ED.

4.2.3 Improves **patient care and flow** in ED. *"Role has allowed more guidance to trainees and aware that if I hadn't been present patient outcomes may have been different …"*.

4.2.4 Initial **staff anxiety** especially PPE but *"… see as unchartered territory never walked before and changing everyday …"*. CE's have variable supportive/**pastoral role**, other staff are taking on that responsibility in some Trusts. Some CE's report improved relationships within ED and staff bonding – supported by the public too. Support can be around careers advice and progression.

4.2.5 The current situation requires **greater creativity in planning** education and demonstrates innovation. One site has out of work pilots helping with human factor of critical debriefs in dept, 'Project Wing man'.

4.2.6 Some CE's report pandemic had detrimental effect to formal teaching but others state improved shop-floor teaching and introduced use of on-line learning.

4.2.7 One CE reports **objection to CE role from Managers** in ED as slows patient flow and holds back trainee from clinical work. Others have implied some tensions with Managers; *"Need understanding between CE and Consultant in charge on the floor. Sometimes that's lacking …"*.

4.2.8 CE's have reported of **personal benefit** to their own learning; from Covid and CE role. Enjoying the role *"This is what I came into EM for …". "A refreshing thing for Consultants to be doing …"*. Enjoying ED more. *"…CE role…its now much happier place to work. Its back to how it used to be 10 yrs ago …"*.

4.2.9 **CE uniform** benefits the role, visibly in role and available. Can be also challenging in that other consultants will pass on learner enquiries to the CE in ED.

4.2.10 Some have mentioned **lack of clarity about CE role;** how they should work, but they are learning over time and some information from UECare has helped, but keen to learn more from others.

4.3 Recommendations (verbatim / as expressed by the participants):

4.3.1 CE role should definitely continue; *"… should be standard practice & in job plan. Shop-floor teaching is vital.". "Not just about service provision but about education. Has made job more enjoyable …"*. RE shop-floor teaching - *"You can't teach someone to swim from the side, you have to teach them in the water …"*.

4.3.2 To Trusts: - Not safe to go back to how it was. Need plan for long term change. *"… won't get back to corridor medicine …"*.

4.3.3 Should build CE role into ED Consultant role.

4.3.4 Need to develop on-line teaching further, but aware doesn't have benefits of face to face teaching ie *"… non-verbal cues are important …"*.

4.3.5 Most CE's would prefer more PA's. Many exceed their PA's time to provide education.

4.3.6 HEE to give greater clarity on the CE role.

4.3.7 To HEE; need to improve the data capture process. Would be helpful for them to be able to see what work they have done and what type and compare with own CE colleagues on the system.

5. CEED Interviews with non-medical learners

- The semi-structured interviews were conducted over the phone with 6 participants working in 6 Emergency Departments – Phase 3 A7, type 1 (principal study) sites. Undertaken by DD during the period 23/7/20 to 7/8/20.
- The semi-structured interviews were up to 30 minutes in length.
- The participants were asked to describe their own experiences, opinions and recommendations with regard to the Clinical Educator role in their own Trust.

There are three main themes (Experiences, Opinions and Recommendations) generated from the narrative analysis of the interviews. These are described below. Please note these are the verbatim or summary comments of the participants and not the opinions or recommendations of the report authors.

5.1 Experiences:

5.1.1 Participant ED working experience, training and future plan:

The participant learners have been working in the Emergency Department between 4 months to 9 years. The majority are either training to become an Advance Clinical Practitioner (ACP) or already are qualified ACPs. Five of the participants are from a nursing background one is a paramedic, and all of them want to continue their career in the Emergency Department.

5.1.2 Participant Experience with Clinical Educators

All the participants had direct experience with a clinical educator but the number of engagements with a clinical educator varies from one Trust to another and from one speciality to another. All of them preferred the one-to-one sessions, over the grouped (multi-disciplinary) sessions. From the learner perspective, one-to-one sessions are "… brilliant…", they get the opportunity to ask the questions they specifically want and they are more engaging, in comparison to group sessions.

Participant 1 referring to a one-to-one session as: *"… absolutely great, as non-medical my portfolio is exactly the same as my medical colleges but as non-medic, I get asked to do a lot of details and a lot of information, being (a) competent looking at those presentations and many of those implies a consultant being with me when I am assessing those people."*

In general, the CEs are easily identifiable on the shop floor as they dress in different colour so staff can recognise them and approach them.

5.2 Opinions (verbatim / as expressed by the participants):

5.2.1 The role of Clinical Educator

In the opinion of the learners, the sessions with the Clinical Educators are very useful. And the role is really important to both clinical and wellbeing aspects, as they are the first focal point to ask for: clinical advice, support, guidance, future career questions and progress such as educational degrees.

5.2.2 The characteristics of good Clinical Educator

The following are a list of personal characteristics of what a good Clinical Educator should be:

- Knowledge and Experience in ED,
- Provide honest feedback,
- Being available,
- Adapt their clinical teaching style ***(This especially for non-medic learners),***
- Simplify the process,
- Good communication,
- Patience,
- Respect,
- Form a learner perspective they need to know that the information they get from a CE is trustworthy,
- Personality,
- Ability to nurture and teach,
- Approachable: from a nurse perspective ***"I, as a nurse, I am not afraid to go and ask them …".***

5.2.3 Who could deliver the role of a Clinical Educator?

Some of the participants believe that this role should be delivered by EM consultants only, however, others strongly believed any grade levels with a good personality and knowledgeable characteristics, ideally from different professional background, could take on the role.

Participant 3 suggested that there is an opportunity for other grades to take on this role but they need to be guided and moulded also they need to have A&E specific emergency medicine training.

5.2.4 The presence of Clinical Educator and Patient Flow

Generally having a Clinical Educator will support the patient flow, as the staff will tend to reach out for them when they need guidance and support for a particular case presentation. Clinical Educators in all Trusts are at a consultant level so they could assist the learner with their query and provide teaching alongside them. In one case, the interviewee mentioned that due to COVID-19 her department has moved out the main building, making it really hard to seek for support from the Clinical Educator - as a consequence it could slow down the flow due to the physical aspects of it.

5.3 Recommendations (verbatim / as expressed by the participants):

All the participants in this study would wish for this role to continue, describing it as an invaluable role that improves patient care and patient outcome as well encourages staff to learn more.

5.3.1 Recommendation on how many times a week a Clinical Educator should be present in the Emergency Department:

Majority recommend having a Clinical Educator Monday to Friday full-time and sometime during a night shift. Others recommended having a group session on the shop-floor for 20 minutes per shift led by a Clinical Educator. It was clearly highlighted in the interviews, especially when the number of the Clinical Educators are limited in the Trust to increase their presence during the time when the junior doctors are starting as this time is a very stressful period in the department. Having the Clinical Educators is very valuable to guide, teach and support the junior doctors.

5.3.2 Recommendation to the Trusts:

The participants recommend to continue with this role as well as investing in experienced people that are already available in the Trust such as consultants, registrars and nurses as well as others across the board, and provide them with more time to teach. One of the participants mentioned that ***"If I got someone to teach me I`m more likely to want to keep learning.".*** Others suggested increasing the number of Clinical Educators.

One participant suggested that we need to define the personal characteristics for a good Clinical Educator and who could fit within this definition, as it would be a waste of money if this role was given to someone who is not right for the role.

5.3.3 Recommendations for HEE:

- To continue the support of this role and further develop it and increase the number of the people who are doing the role. Also to have multidisciplinary teaching session where all professions could learn from each other.
- Others recommended investing more money in this role and expanding it, as sometimes teaching is inconsistent due to the limited number of Clinical Educators.
- To expand this role across other specialities not just the Emergency Department.
- One participant suggested that to overcome the issue of limited time to approach the Clinical Educators by the ED staff, for them to be supernumerary (at times) and follow the Clinical Educator even for few hours so they could learn from them.
- To employ people in the future only for teaching and learning purposes.
- To utilise the experience of the consultants, and reduce their clinical work and invest in their knowledge in teaching; this will help to have better trainees.

The evaluation team would like to thank Dania Dahmash (Aston University) and Kca-Sey Chin-Hoyte (DSA Intelligence) for their invaluable contribution with semi-structured interviews and analysis.

6. CEED Focus Group – Principal Investigators or deputies

- CEED focus group. 10 September 2020, phase 3 A7 activity.
- Held remotely using MS teams.
- Two clinical educators, and two EM managers. Facilitated by DT and MC.
- Narrative summary.
- Discussion followed the experiences, opinions and recommendations (EOR) framework. 49 minutes.

Please note these are the verbatim or summary comments of the participants and not the opinions or recommendations of the report authors.

6.1 Benefits/disbenefits of clinical educators

- Education matters and we should conserve it no matter how busy we are.
- Giving consistent educational support. This programme helps support education when otherwise it might have lapsed. "That has been a huge benefit, I think, for us all as a group."
- "It is been entirely positive." It has been useful also to support others including nurses and ACPs.
- It's useful to have a go to person for support, and having time to spend with them. It's an opportunity to put the trainees and their needs first.
- "It allows the trainees to get the training they want." It prevents disturbing others.

6.2 Engagement with multidisciplinary team

- CEs have been promoted to the whole ED team, "It worked very well for us."
- It may be that ACPs are the non-medical group that benefits the most. It's a culture change for the nurses.
- It's possible to allow CEs to focus on doctors unless the other professions put themselves forward. We have to change the attitude to show that this education is for the whole team.
- Our ACPs self-roster and they self-roster themselves exclusively to shifts where a clinical educator is on. They know that they will get a lot of positive feedback and support.
- Simulation training has been provided for the nursing staff, to get them practised for the rarer (clinical) things.
- We have a new nurse educator specific for non-medical staff. A nurse educator subgroup of the clinical educator. They wear a tabard, and nurses go to them.
- In one site ACPs have taken less interest. Nurse training via simulation has included repeat sessions which have been well received. So the nurses are engaging in a less fearful way and learning "…tons…". One site has seen a massive change in the nurse engagement, but ACPs have stayed at arms' length.
- Nurses may gravitate to the multidisciplinary sim rather than one-to-one opportunities with the clinical educator on the shop floor.
- The clinical educators have a better knowledge of the multidisciplinary educational needs as a consequence of the programme.

6.3 Benefits/disbenefits to clinical educators themselves

- "It gives us license to teach. It gives the trainees licence to ask."
- Reduces pressure to queue bust. It's satisfying. You go home happier at the end of the day.
- The Department is gaining extra consultant resource as a result of clinical educators.
- It's quite good for the well-being of the individual. In that sense it makes the job more sustainable. It makes the work enjoyable. It's also been a steppingstone to other educational duties. There is a developmental aspect to this for the individual consultant.
- It really takes education into the Department, whereas in the past education might take people away from the Department. It works very well having someone embedded in the Department. It's made education "… good and okay and changed the way education has been delivered." Previously there may have been managerial criticism of taking trainees away (for education), now it is seen as a positive thing. The benefits are sold.
- The only disbenefit noted was that sometimes you get a queue of people forming to discuss things with the CEs. "You sometimes have to remind them that there are other consultants that they can ask." There can be some disowning of education from the other consultants since someone specific (CE) is there to undertake this task. This effect may depend on the Department and how many people you have and how the workload is shared out. Non-clinical educator clinicians confirm that they are still asked questions related to educational components. It is a risk that clinical supervisors may ask trainees to book sessions with clinical educators.

6.4 Do clinical educators slow the workload of the Department down?

- No. The involvement of clinical educators may alter the course of care beneficially. It's a perfect opportunity for clinical educators to help a struggling training (whilst undertaking direct clinical care). You have time to help them. You can also help them "… with the non-clinical stuff e.g. communication …" etc.
- A CE may not speed up the care of the patient in hand, that it may speed up the next patient that comes along (with the same issue), and those that may be seen in the next 4 to 6 months.

6.5 Sustainability

- We have continued the CE programme through a difficult winter and through COVID-19. We continue to educate. We now face a winter plus COVID-19.
- Funding required to maintain but within significant financial pressures. We need to show what the benefits are. Anecdotal evidence dominates.
- How does the programme improve quality of patient care? Question to be answered.
- Registrars working in the region with clinical educators feel they are better looked after, making departments with clinical educators more attractive. Some departments without HEE funding have created clinical educators themselves because of these benefits. In one organisation they expect to continue if funding is pulled, because of the perceived benefits. The programme has created opportunities to bring in extra staff.
- A benefit of being in the pilot is that the Trust has already funded 50% of the programme. Funding from scratch may be a bigger challenge for departments that haven't been part of the pilot.
- Other clinical departments have copied the model – "… so we now have clinical educators in AMU and intensive care unit."

- Funding and business cases are an issue.
- Staff will be very disappointed if this programme disappeared. Clinical educators have really enjoyed it. Previously the burden of being clinical and educating has been difficult. The CE programme has been taken on "… with relish". Additional PA work has been agreed on top of existing contracts – at one site. So this has given them (CEs) some personal benefit to be allowed to do this work.
- Because of personal circumstances of existing CEs one site may have to do some job planning with existing staff. At the moment because funding from HEE will stop at the end of March any offers of this job role may only be temporary, with potential difficulties.
- There is enthusiasm to continue with this from amongst the team. There are others who want to become clinical educators if opportunity arises.
- "No one is saying that they want to drop the clinical educator role because it's too difficult…" but for some there are timetabling issues.

6.6 Benefits from additional resource, extra teaching versus ring fencing?

- Do we need to ring fence existing educational resources more effectively? Or is it about gaining more resources?
- Clinical educators are obvious on the shopfloor. We do not use them to supplant the supervisory education role. For some the clinical educator role was taken on as work within existing commitments - clinical work was shifted to protected educational work. Then funding was used to backfill. So at this site if funding is lost they would lose the backfill rather than the clinical educators.

6.7 Role of non-consultant medics as clinical educators, or even non-medics?

- Some sites have an educational team that includes nurses and registrars as educators. A mixed team. "This works really well in practice… We run lots of training on Wednesdays."
- It would be helpful to expand the criteria for who can be clinical educators. Some suitably skilled staff were ineligible within the current scheme.
- Paediatrics was an issue in this scheme. RCPCH is an important partner. Need RCPCH to reach an agreement with HEE.

6.8 Recommendations (verbatim / as expressed by the participants):

- "Get clinical educators in your department."
- Make them clearly identifiable.
- Make other departments aware of this role. Registrars from elsewhere have seen it as a positive thing.
- "I can't imagine a situation where our department would go back from where we are now to not having them …" It would be hugely negative, trainees think it's wonderful.
- Positive benefits on recruitment.
- Positive benefits during the pandemic, to support education and ever-changing protocols.
- One Department reports that for personnel reasons the clinical educator programme didn't run for 6 to 8 weeks and the perceived benefits were lost, when it was needed. "I missed it."
- Clinical educators became a very valuable way of delivering service change when needed.
- Need the outcomes of the study to be made known. Need a clear voice from RCEM and HEE.

- A summary sent out would be helpful, and that these methods can be helpful in other departments in the hospital. It needs to be clearly understood that recommendations come from these large bodies. This is an important way to improve retention of staff in the NHS.
- An induction pack for new clinical educators. Tips and tricks, a toolkit. That is provide a resource pack.

6.9 Substantiation of claims

- it helps recruitment and retention but trying to get data to support that is difficult.
- Linking to cause and effect is difficult.
- Quantitative data to support the claims needed. Staff want education we know that.
- "Neighbouring Trusts asked to join in our teaching sessions." We achieved positive exam results for a number. And proved that education is crucial for progress. Could data on training delivering success in exams be useful? There may be some identifiable outcome.
- Case reports may be a powerful way of supporting the evidence. Perhaps invite sites to contribute.
- Do clinical educator sites have better retention?
- Support for overseas trainees may also be a useful marker, getting them onto training programmes.

7. CEED Manager SSIs

CEED Phase 3 Manager Interviews – 3rd to 4th September 2020
N=3. Themes – summary. Narrative analysis (DT).

Please note these are the verbatim or summary comments of the participants and not the opinions or recommendations of the report authors.

7.1 Benefits / disbenefits

- Clinical educator programme is a positive experience. Staff members from various groups have expressed the benefit. It's of value to the Department as well as individuals. It would be missed if removed.
- Junior doctors feel very supported by the programme.
- Clinical educators are an example of an innovative department.
- Detailed support for clinical processes is provided via clinical educators, including through COVID-19.
- The erosion of shopfloor teaching to medical staff has been reversed by clinical educators.
- Provision of clinical assessments has been positive.
- CE's have helped us keep up-to-date with new guidelines and policies.

7.2 Evidence for benefits

- Benefits may be tied to the GMC survey results - especially recruitment intentions.
- Evidence for benefits are growing.

- One site's reported high recruitment levels are considered to be a consequence, in part, of clinical educators (site two).
- Assessments.
- Staff feedback.
- Recruitment improvement.
- Negative impact if stopped.
- Enthusiastically supported by consultants.

7.3 Future funding / provision of clinical educators / business case

- CEED programme sites are already funding half the costs.
- I need to submit a business case!
- Business case for clinical educators cannot be won on saving money. But may be awarded because of added benefits e.g. attracting and retaining staff. Staff career progression.
- Departments with clinical educators are attractive.
- It's not difficult to recruit staff to clinical educator roles.
- Transfer of DCC time for education would not be supported. However, SPA time has potential to support clinical educators moving forward.
- Additional funding for clinical educators is not expected at this time from the Trust. Funding must come from the existing pot (site one). Part funding the CE's is a possibility (site two).
- Getting support for a business case from clinical medical staff will be easy.

7.4 Users of clinical educators

- Medical trainees are the biggest users. ACPs are also big users. Those that are working through structured training programmes are likely to benefit from CEs. Engagement with other users is less certain, and may be via multidisciplinary educational sessions (not one-to-one).
- It's of "absolute importance" that clinical educators support the whole ED team. "If you only focus on part of the team you're missing a trick!"
- CE's gave us the platform for involving nurses in departmental education.
- The multidisciplinary ED team benefits from multidisciplinary education.

7.5 Who can be clinical educators?

- No problem in employing an ACP is a clinical educator, and do now (two sites). There is value in learning from others. A mixed group of clinical educators may have financial benefits to staffing costs.
- It may be appropriate to identify the natural educators in the Department and to recognise them in that role rather than appoint people specifically to that role.
- Non-medical clinical educators are supported.

7.6 Characteristics of a good clinical educator

- This is mostly dependent on the individual and their enthusiasm, rather than their professional background.

7.7 Provision of clinical educators outside of office hours

- Clinical educators stick mostly to office hours. Patient types at other times of the week are different, but this is a small proportion of ED work.

- Almost all professional staff work on a rota and so will be exposed clinical educators at some time.
- Some sessions provided at weekends (site three). This has been helpful for some specific staff. You may also have more time with some staff at the weekends, than in the working week.

7.8 How much clinical educator time is required?

- Site three - two educator shifts per week should be minimum and doable.

7.9 COVID-19

- The provision of clinical educators during the COVID-19 pandemic was not specifically explored during these interviews.
- Clinical educators have been useful during COVID-19, where new policies were introduced frequently. Clinical educators compensated for the loss of other methods of communicating with staff during the pandemic. It was very useful to have the CE time during COVID-19 to give updates, techniques, involving nurses etc.

8. CEED Activity data

Activity data continues to be collected via a bespoke online form completed by the clinical educators.
Data is shown for the period 1 October 2019 to 30 September 2020 - the second year of CEED activity.

Table 1 below shows a summary of the activity reports collected during the above period.

CEED Online Activity Data Summary - Year 2 - 01 October 2019 - 30 September 2020		31/09/2020
Max no. trusts in pilot project (Year1)		**54**
Current no. trusts		**51**
Number of PAs budgeted		**164**
No. PAs per trust	**2** (min)	**5** (max)
No. CEs per trust	**1** (least)	**10** (most)
Total no. Clinical Educators appointed since October 2018		**247**
No. Clinical Educators issued with online details to 31/09/20		**248**
No. Clinical Educators making at least one activity return (xl sheet Oct.18 - May.19 and/or online from Jun.19)		**202**
No. Clinical Educators that have made at least one online activity return to 30/09/20		**192**
Total no. online reports made from 01 Jun. 2019 to 30/09/20		**5919**
Number of Clinical Educators in role during Year 2		**203**
Current no. Clinical Educators		**170**
Total no. online reports made during Year 2		**4327**
Total no. PAs reported during Year 2 (1PA=240min)		**3070**
Mean no. minutes per report in Year 2		**170**
No days between activity and report in Year 2	**0** (least)	**277** (most)
Percentage of reports made on the same day as activity in Year 2		**30.9%**
50% reports made within x days of activity in Year 2		**4**
Mean no. days between activity and report in Year 2		**13.6**

Table 1: Activity data reported during the period 1/10/19 to 30/9/20
Over 4000 activity reports were made in this period from a total of 51 sites by 192 different clinical educators. Overall, 36.2% of clinical educator time has been reported in the activity forms.

Table 2 below shows the clinical educators activity returns per month since June 2019.

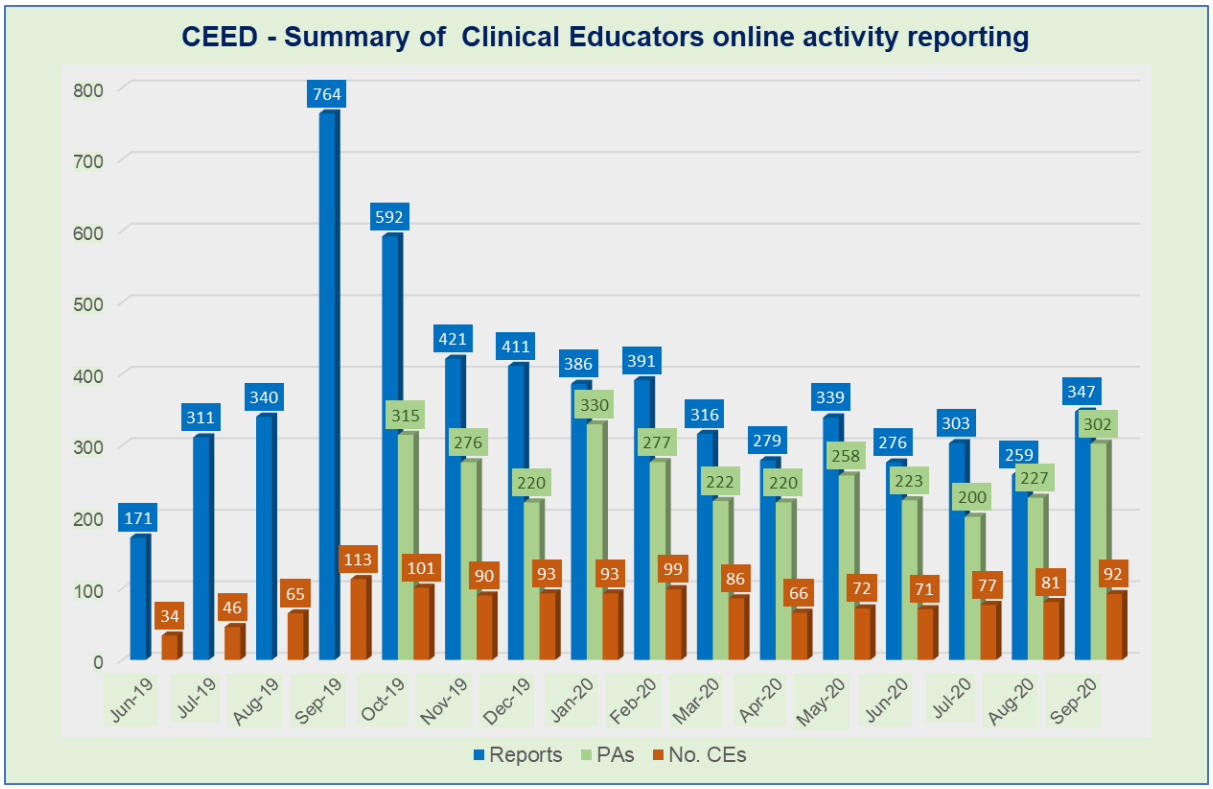


Table 2: clinical educators activity returns per month

The number of reports and the number of clinical educators filing those reports has decreased since the beginning of the COVID-19 pandemic.

Table 3 below shows the percentage of trusts and clinical educators filing reports per month in the second year of the CEED study.

Reporting - Year 2	Trusts			CEs			No. reports made in month	no. PAs for month	
October 2019	50	100.0%	of 50	101	65.6%	of 169	592	317	
November 2019	47	94.0%	of 50	90	58.4%	of 167	425	276	
December 2019	41	80.4%	of 51	93	59.2%	of 169	411	221	Tool#2 live on 18 Dec. '19
January 2020	41	80.4%	of 51	93	58.9%	of 168	387	330	
February 2020	43	84.3%	of 51	99	62.3%	of 165	392	277	
March 2020	42	82.4%	of 51	86	53.8%	of 167	316	224	
April 2020	35	68.6%	of 51	66	40.0%	of 170	279	222	
May 2020	37	72.5%	of 51	72	42.6%	of 172	339	260	
June 2020	39	76.5%	of 51	71	42.0%	of 175	277	239	
July 2020	42	82.4%	of 51	77	45.6%	of 173	303	215	
August 2020	45	88.2%	of 51	81	49.4%	of 172	259	241	
September 2020	45	88.2%	of 51	92	55.4%	of 170	347	314	
Summary	53	103.9%	of 51	172	84.7%	of 203	4,327	3,134	

Table 3: Percentage of Trusts and clinical educators filing online activity reports per month

Appendix 8 – CEED Evaluation Plan

- Updated 18th May 2020
- IRAS Project ID: 265362

Pre-phase 1 (April – October 2019)

Approvals

- E1 - HRA – IRAS
- E2 - Aston University (sponsor)
- E3 - Independent review (through HEE)

Phase 1 (P1) (October 2019 – January 2020)

Activities

- A1 - semi-structured interviews (c. 12)
- A2 – Focus groups (c. 3)
- A3 – Surveys of learners (A3.1), clinical educators (A3.2) and EM managers (A3.3).

Outputs

- O1 – early findings and recommendations, dissemination through regional meetings.
- O2 – early summary report to commissioner (HEE)

Phase 2 (P2) (October 2019 – May 2020)

Activities

- A4 – Clinical educator's activity (online)
- A5 – Learner feedback (online)
- A6 – Site reports on EM workforce summaries (prepared for HEE)

Outputs

- O3 – mid-project findings and recommendations, dissemination through national meeting.
- O4 – mid-term report to commissioner (HEE)

Phase 3 (P3) (May 2020 – January 2021)

Activities

- A7 - semi-structured interviews (c. 60) – type 1 sites learners (max. c.6), managers (max. c.6) and clinical educators (max. [6x4] c.24); type 2 sites clinical educators (only) (max. c.24)
- A8 – Focus groups (c. 3)
- A9 – Surveys of learners (A9.1), clinical educators (A9.2) and EM managers (A9.3).

Outputs

- O5 – open meeting to describe findings and recommendations
- O6 – report to HEE
- O7 – publication(s)

- O8 – conference presentation