Royal College of Physicians

NHS
Health Education England

Never too busy to learn

How the modern team can learn together in the busy workplace

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Introduction

Working and learning in busy clinical workplaces

Healthcare is delivered by multiprofessional teams in increasingly busy workplaces with a rising proportion of patients having complex needs. Each profession must ensure the profession-specific development of its members throughout their careers, and their wider expertise in patient-centred collaborative practice and service improvement.

There have been concerns raised about tensions between service delivery and education/practice development. Recruitment and retention challenges are becoming more widespread, and teams can appear fragmented. Many healthcare professionals – and junior doctors in particular – are asking for more flexible careers, better working conditions and enhanced learning opportunities. Furthermore, the introduction of the apprenticeship levy in 2017 and the subsequent commitment to delivering more than 100,000 apprenticeships in the NHS by 2020 has resulted in an increase in the numbers of work-based learners in practice, and this will continue to grow. NHS trusts are using the levy to shape the future workforce to meet local demands, giving local populations opportunities in healthcare.[1]

High-quality learning opportunities are essential for clinicians in training, both for the successful completion of their training and to ensure high standards of care in the NHS. In the current climate, however, learning can be neglected due to being 'squeezed out' by multiple pressures and insufficient attention to the learning opportunities provided by day-to-day practice.

Traditional medical firms, apprenticeship and the 'post-firm era'

Traditional views of clinical education give prominence to apprenticeship in clinical areas and training sessions. For doctors this would have occurred largely within a hierarchical medical 'firm'. When functioning well, firms provided a structured development process, role modelling of professional behaviour, mentoring, and a good balance of challenge and support. However, experiential learning within a close-knit social community, such as a medical firm, was inevitably variable, accounting for considerable inconsistency in educational quality and outcomes for trainees, and in the resultant standards of patient care.

Previous research by the Royal College of Physicians (RCP), including the 2016 report *Being a junior doctor*, highlighted the widespread breakdown of traditional medical firms. The frequent rotation of trainees means that their involvement in teams is now more transitory in nature – a challenge for both them and the members of staff (senior and long term) they work with. Changing staffing structures and new ways of working within the NHS have meant that many doctors no longer work in this way, and at the same time, the recognition of shared leadership in multidisciplinary teams (MDTs) has grown. Today's doctors have the potential to benefit from increased opportunities to learn with and from other professions, while retaining mentorship and supervision from more experienced doctors.

Of course the working environment has not only changed for doctors. The largely profession-specific apprenticeship training of other groups, such as nurses, has evolved within busier, less-stable clinical environments, and has also embraced changing patterns of interprofessional working and learning. The introduction of new roles, such as advanced nurse practitioners and physician associates (PAs), brings added dimensions of practice and learning to our workplaces.

Contemporary approaches to maximising learning in the workplace

In the midst of busy clinical workplaces there is clearly a need to streamline learning within the flow of daily work, and to complement the ever-evolving workforce and work patterns, without compromising quality, patient safety and traditional support mechanisms. In his paper 'Workplace affordances and individual engagement at work', Stephen Billet goes as far as to say that there is no separation between participation in work and participation in learning.[2] Work activities, workplaces and work colleagues provide rich opportunities to learn. However, Billet also argues that workers' readiness and aptitude to engage with work as a learning activity depends on how 'invitational' the workplace is, ie how well it offers relevant and useful opportunities to learn and how much it encourages staff to engage with these opportunities. When working in an environment that regularly 'invites' learning, staff are more likely to access the learning potential of their everyday working practice.

The purposes of this resource

This publication explores how 'invitational' learning environments can be created in clinical settings, and in doing so, poses two key questions:

> How do we create learning opportunities in the clinical workplace?

> How do we maximise the impact of these opportunities?

In seeking to answer these questions we have explored a range of approaches in the context of a range of workplace-based activities, which are illustrated in the infographic on page 3. This exploration was approached collaboratively. Working in partnership with healthcare professionals from several NHS regions, we have gathered case studies that demonstrate feasible and tested strategies. Many of the case studies explore the creation and maximisation of learning opportunities present within the flow of everyday clinical work.

However, it is important to stress that time must also be protected and set aside for the purposes of professional development.

Therefore, as we progress through the resource we widen our focus to consider learning strategies that healthcare professionals might engage in when not 'on-the-job'. In each section we provide commentary and top tips for implementation.

In boxes titled 'How could this work for you?' we also ask you to consider how these strategies might be applied in your own workplace. Our hope is that you will go away with new ideas and a clear notion of how these strategies could be put into practice to maximise learning within your professional context.

How to create and maximise learning opportunities in the modern workplace

1. **Target your time**
   How to make board rounds more efficient and learning-oriented

2. **Utilise brief learning moments**
   'Druggles' and tea trolley training

3. **Learn while with patients**
   Keeping ward rounds, the take and outpatients educational

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5. **Practice makes progress**
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8. **Embrace technology-enhanced working and learning**
   Digital platforms that create and maximise learning opportunities

Abbreviation list

App: Software, web or mobile application

AIRVO: A humidifier with integrated flow generator, useful for delivering higher flow oxygen practically where needed (nasal high flow oxygen)

ARCP: Annual review of competence progression

CT3: Core trainee year 3

ED: Emergency department

ES: Educational supervisor

GIM: General internal medicine

ICM: Intensive care medicine

ICU: Intensive care unit

MDT: Multidisciplinary team

NIPPY: A brand of non-invasive ventilation machines

PA: Physician associate

PACES: Practical assessment of clinical examination skills

PDSA: Plan-Do-Study-Act

PICU: Paediatric intensive care unit

PIC: Plans, Involvement, Concerns

PPC: Primary place of care

PTWR: Post-take ward round

SBAR: Situation, Background, Assessment, Recommendation

StR: Specialist registrar

WPBA: Workplace-based assessments

1 Target your time

As Stephen Billet's work on affordances argues, all workplace activities and interactions provide potential opportunities to learn. In this first section, we'd like to suggest that ensuring workplace activities are efficient and targeted can release their learning potential. In this instance, we have chosen to focus on how this can be done in the context of board rounds, although the principles and techniques we discuss can of course be applied to other clinical workplace activities, for example ward rounds.

Board rounds

A board round reviews the care of a group of patients (and possibly also the status of resources in the clinical area) using information displayed on a board, computer screen or paper. The group may be multidisciplinary or profession-specific, and the activity is usually led by a senior clinician. Brevity and a clear structure can bring focus and purpose to a board round allowing successful communication and meaningful knowledge transfer, and hence opportunities to learn. Case study 1.1 demonstrates this approach in action.

The success of the PIC tool (outlined in case study 1.1) suggests that embedding a simple and familiar structure can be a powerful strategy to improve the focus of a board round and therefore improve its utility as a learning opportunity. The approach also highlights the possibility for organisations to design their own tools informed by the nature and needs of their workplace, and therefore tailored to specific contexts.

The choice to break with convention and opt for senior nurse leadership was also a distinctive feature of this particular approach; multidisciplinary involvement invites input from a variety of perspectives and knowledge bases creating the potential for a richer learning experience. A final by-product of this strategy which should be highlighted is that in its efficiency it has the potential to free up pockets of time, albeit fleeting, within the working day. In Section 2 we explore how these brief moments can be used as impactful learning episodes.

Case study

Improving the efficiency and efficacy of interprofessional board rounds

CS 1.1

The Marie Curie Hospice in Liverpool offers specialist care for 30 inpatients living with terminal illness. A MDT working review in November 2016, facilitated by medical director Dr Laura Chapman, highlighted the fact that existing lines of communication were often ineffective and time consuming. As a result, a new system was launched: 15 minute handover and admissions board round meetings attended by a representative of each profession. This replaced the 15+ handovers which previously took place on a daily basis in the unit but failed to ensure that the right people had the right information.

Responsibility for facilitation was given to a senior nurse as opposed to the traditional leadership of a senior doctor – a move which has improved communication and interprofessional learning. The chosen location for the board round was renamed from 'sister's office' to 'ward office', encouraging greater interprofessional involvement in the activity. In addition, the 'PIC tool' was developed to prompt discussion, facilitating the efficient communication of relevant information and increasing the chance for participants to learn from the process:

- **Plans:** Is the patient going anywhere today or tomorrow for an appointment? Are we making progress with plans to get them to their primary place of care (PPC)?
- **Involvement:** Are they being seen by the right members of the MDT? Is now the time to ask for other specialists (eg chaplain, therapists) to get involved?
- **Concerns:** Are you concerned about this patient or their family? Have they had a fall, a marked change in condition or poor symptom control? Are the family or other members of the MDT voicing concerns?

An anonymised questionnaire has demonstrated staff approval and an increase in morale as a result of implementing the tool. Members of the interprofessional team feel able to communicate clearly, and discuss patients and cases in a structured way that supports the successful transfer of knowledge.

In case study 1.2, from University Hospital Coventry and Warwickshire, focus has been brought to board rounds through devoting attention to particular patients. This targeted approach is seen as essential to ensuring the activity provides an effective opportunity for learning, as described by Dr Amie Burbridge.

Case study

The board round as a catalyst for learning

CS 1.2

Dr Amie Burbridge
Consultant in acute medicine and general internal medicine
University Hospital Coventry and Warwickshire

One way of increasing learning opportunities within the workplace is to utilise the board round to educate. Although board rounds are an essential part of the working day they can be very time consuming and need to be targeted.

We do this in a number of ways. Firstly, rather than discussing every patient, only the sicker patients are discussed.

Secondly, the consultant of the day will highlight a learning point in each of the discussed patient cases, and relate it to a clinical guideline or recent research. This often stimulates debate and many questions over the course of the day.

A doctor is tasked with reading one particular guideline and reporting back the salient points at the end of the shift. By the end of the week, five guidelines have been reviewed and these are recapped and presented at an end of week learning huddle. This not only improves knowledge, but also the presenting and teaching skills of trainees.

As well as successfully targeting time to facilitate learning, this approach allows the board round to act as a catalyst for learning throughout the day and week.

This strategy highlights the developmental power of not viewing these activities as standalone learning opportunities, but as elements of a wider web of learning episodes.

This case study vividly demonstrates Billet's concept of an 'invitational workplace'; through engaging in a focused and effective learning experience, staff are motivated to continue thinking, questioning and learning as they engage in the rest of their professional responsibilities.

How could this work for you?

- **How could the board rounds you experience be targeted without stifling important input?**
- **Have you experienced efficient and productive board rounds? What makes them so? How can you make that happen more often in more contexts?**
- **How could your board rounds be used to motivate learning throughout the working day?**
- **If you are not happy with your board rounds, what do you think needs to change?**
- **How could thinking spurred by this exploration of board rounds transfer to streamlining other regular activities in the workplace?**

Top tips for maximising the learning opportunities provided by board rounds

1 Keep it brief

Use existing tools like SBAR (Situation, Background, Assessment, Recommendation), or create new ones suitable for your workplace (eg the PIC model) to facilitate focused conversations and improve efficiency.

2 Choose a neutral location

Consider locating your interactions in a space that is neutral rather than connected to a particular profession; this will encourage greater multidisciplinary participation and therefore involve a greater range of insight and expertise.

3 Use as a spring board for learning

Don't view the board round in isolation. Consider how it can be used to pose questions and generate debate that will keep staff thinking and learning throughout the working day. Encourage all participants to speak up – learning needs to be explicit.

4 Provide facilitation

Identify a facilitator to ensure the implementation of your chosen tool. You may choose to rotate this role amongst a variety of different professions or, as in case study 1.1, prioritise continuity by consistently delegating this responsibility to the same member of the team.

5 Observe others / let others observe

It may be useful to ask an educator from another department to observe your board rounds and provide feedback on their efficiency and utility as learning opportunities; this could be reciprocal. Witnessing how other teams within your organisation run theirs can often be a powerful source of inspiration. If you have the resource, an external coach may bring an objective perspective.

2 Utilise brief learning moments

In Section 1 we suggested that a possible by-product of focusing and streamlining certain clinical workplace activities might be the creation of moments of 'additional time'. We realise, however, that in the context of busy clinical settings any time created is likely to be extremely brief. We therefore move on in our second section to explore how brief learning moments, in this case within the context of huddles, can be utilised as meaningful and impactful learning opportunities.

Huddles

Huddles are brief opportunities for staff from the relevant professions and disciplines to meet for focused communication and knowledge sharing. Unlike board rounds they are not exclusively focused on a patient list and can relate to a wide range of topics, such as patient safety, delegation of work, or the introduction of new techniques and approaches. Some huddles are pre-planned and mandatory, for example a WHO surgical checklist in theatres, but they can also happen spontaneously.

As shown in the following case studies, huddles can be used to provide all members of modern MDTs with feasible opportunities to engage in brief yet impactful episodes of learning.

Case study

'Druggles'

CS 2.1

Once a week, since January 2018, Natasha Moore (ward pharmacist at St. George's Hospital's paediatric intensive care unit [PICU]) has held 5–10 minute huddles at the end of morning handovers. Providing a chance to share knowledge and understanding in relation to drug prescription these brief learning opportunities have been aptly named 'druggles'.

The timing of the druggles allows doctors from both the night and day team to attend, as well as the nurse in charge and other staff who can be released briefly from clinical duties.

This concept emerged from the Situational awareness for everyone (S.A.F.E) programme run by the Royal College of Paediatrics and Child Health and was initially developed in Watford General Hospital.

Natasha's druggles usually start with a review of the prescribing errors from the past week. Sometimes this leads to discussions about what can be implemented to prevent the error from happening again. For example; making the paracetamol guidelines available on the PICU website, or changing the prescribing order sentence for gentamicin on the electronic prescribing system.

Following this, Natasha picks one topic or drug to teach about. This is either related to the errors from that week or a topic suggested by any of the staff on the ward.

This is an opportunity for the immediate learning needs of the staff to be met, when it comes to pharmacy or prescribing matters, and ultimately, should enhance patient safety in the PICU.

Case study

Tea trolley training

Take a break to teach, teach to take a break!

CS 2.2

At Bath NHS Trust the learning opportunities of huddles are being maximised via the use of a tea trolley! Sarah Wickenden, CT3 anaesthesia, describes this innovative strategy:

'*Bath tea trolley training is a novel method of training that we have developed in Bath over the past 3 years and which we have used extremely successfully to provide multidisciplinary training in the workplace in our intensive care unit (ICU). It involves loading up a trolley with educational material on the top and a pot of tea on the bottom: this trolley then travels around the ICU, with 1–2 trainers providing 5–10 minute teaching sessions to ICU staff in their workplace during their usual working day (or even night shift!), followed by a cup of tea!*

We have found that this teaching method works very well for practical procedures (eg airway rescue manoeuvres), new protocols and policies (both new protocols and to refresh existing ones, eg major incident plans, major haemorrhage protocols) and even for electronic prescribing. We have run projects in the ICU, operating theatres, delivery suite and on the general wards – and have trained >700 staff using this method.'[3]

Since the team, led by Dr Fiona Kelly (intensive care medicine consultant) started delivering this training 4 years ago, 12 other UK hospitals have also adopted this approach. The strategy has also attracted attention on an international scale with organisations in both France and Canada loading up their tea trolleys in order to facilitate multidisciplinary learning throughout the workplace.

For more information follow **#teatrolleytraining** on social media.

How could this work for you?

- Which moments of the day in your workplace could accommodate brief learning moments? When could they be scheduled to allow maximum multidisciplinary involvement?
- Where and when do staff in your workplace gather to take a break? How could you integrate learning into these instances?
- Which members of the team could be encouraged to take the lead or share information?
- Which learning needs in your workplace could be met through 5–10 minute learning opportunities?

Top tips for maximising the learning opportunities provided by huddles

1 Time them tactically

Consider a time in the working day (eg after morning handover) that will allow multiple members of the team to attend.

2 Encourage multidisciplinary involvement

Engage a variety of professions in leading learning within huddles to encourage the sharing of a range of knowledge and expertise.

3 Use brevity as a unique selling point

Publicise the fact that these learning opportunities really are 5–10 minutes long and be faithful to that promise. Attending these sessions should be feasible for the majority and unlikely to significantly impact clinical workflow. Stress that they are not labour intensive.

4 Publicise the relevance

Publicise the focus and applicability of these brief learning moments to a variety of professions. Consider creating advocates amongst different disciplines to communicate this message. Direct relevance to day-to-day work will ensure greater engagement.

5 Encourage spontaneity

Regular organisation of learning-focused huddles has the potential to embed the practice as a part of organisational culture. Encourage colleagues to use the pre-planned episodes as a model on which to base more ad hoc and spontaneous learning huddles.

6 Every little helps!

According to Maslow's hierarchy of needs,[4] providing for someone's physical needs is essential for them to feel equipped and able to learn. Providing food for every huddle may not be realistic, but do not underestimate the power of a simple biscuit or a cup of tea!.

3 Learn while with patients

The majority of workplace time is of course centred around interactions with patients. It follows that significant attention in this report should be devoted to activities that involve direct contact with the users of the service we provide.

Learn while with patients

For this purpose, we have chosen to focus on three distinct clinical activities: 'the take',* the ward round and the outpatient clinic. For each activity we explore how learning opportunities can be created and maximised.

Practice-based perspectives are brought to this section by reflections from three doctors, and a case study from sonographers presenting a teaching technique that could be applied to any profession with students or trainees.

Before addressing the selected clinical activities it is important to acknowledge the importance of strong relationships in providing the foundation for successful learning experiences. In reflection 1, Dr Emma Vaux explains how investing time and effort in building positive relationships through genuine connection can foster a culture in which colleagues – particularly junior colleagues – feel empowered and encouraged to learn while engaged in clinical interactions with patients.

Reflection

The impact of positive relationships

R 3.1

Dr Emma Vaux
Consultant nephrologist and general physician
Royal Berkshire NHS Foundation Trust

The connection with your trainees is so important. They need to know they matter and what they do matters. It does mean being very organised, but by doing so it means you can create time for educational opportunities and not just e-portfolio discussion/ completion.

Organise opportunities for PACES[5] teaching; have an open invitation to sit in at your clinics; make sure they get to grand rounds and any timetabled teaching and clinics; have coffee (and cake) at the end of a ward round; constantly ask questions of the team as you see patients; build in teaching moments (it doesn't have to be you, get the trainees and other team members to do it); get them to lead the ward round as you observe; think aloud your decision making and uncertainty; make sure they take a break; be a sounding board for career advice and give them your phone number.

It's so busy out there but we need to nurture and value each other, learn in the moment and learn from each other.

* The take – commonly called the 'acute take' – represents a period of accepting, reviewing, or advising on referrals from the emergency department, primary care and other specialties. The work will be carried out by an on-call team, made up of different doctor grades, specialists and occasionally other professions, with a recommended review by a consultant within 14 hours of a new patient admission.

The acute take

In contrast to the traditional firm structure, the makeup of the modern 'acute take' or 'on-call' team is characteristically inconsistent and transitory. This presents several challenges; for example, team members and leaders will be unfamiliar with others' ways of practising, prior knowledge and preferred methods of learning. However, the admission of new patients provides a rich opportunity for clinical learning. Having the opportunity to perform procedures for the first time, observing more experienced colleagues in their work, clerking a patient or debriefing after a busy on-call period are all activities that have the potential to enhance professional development.

Although we refer to the perspective of physicians in this instance, it must be noted that participation in the acute take is not limited to doctors. Nursing staff, pharmacists, physiotherapists, occupational therapists, and newer roles such as PAs and advanced nurse practitioners add to the diverse skill-set required for an on-call team. In addition, as we found in the context of board rounds, interdisciplinary participation allows for a range of knowledge and expertise to be shared, hence creating a richer and more multi-faceted learning experience for all those involved.

In her second reflection, Dr Emma Vaux considers how the acute take can be framed and facilitated to provide meaningful learning opportunities for *all* members of the team.

Reflection

'Start right, ask right, learn right'

R 3.2

Dr Emma Vaux
Consultant nephrologist and general physician
Royal Berkshire NHS Foundation Trust

For me it's about creating the expectation and the educational atmosphere so we all know we are here to learn. It's tricky as in a day I may work with a number of different teams, and I may not know some of the trainees and other colleagues, very well (if at all). But a brief huddle at the start, introducing ourselves and understanding what we are here to do, makes the difference.

One example is about how you can use workplace-based assessments (WPBAs) as a learning tool rather than be asked at the end of an acute take to complete one in a rather tick box approach, or worse, to be asked to complete one at a later date, after the event.

I ask who wants to do a WPBA, and get them thinking about the approach they might take. I use questions such as:

- What are your three learning points?
- What gap(s) in your knowledge have you identified?
- What would you have done differently?
- What do you think you did well?
- What are you going to teach the rest of us as a result of seeing/managing that patient?

I think as a consultant it's about role modelling and motivating the team to learn, and to not let learning get lost in the busyness of the day.

While setting clear expectations at the start of an activity is a powerful tool to facilitate learning, this approach should be held in balance with the fact that the acute take will often generate unexpected, unplanned topics for discussion and discovery.

In reflection 3.3, Dr Amie Burbridge reflects on how a more spontaneous approach can be utilised in a quick and often humorous, but impactful, way.

Reflection

Why is snot green?!

R 3.3

Dr Amie Burbridge
Consultant in acute medicine and general internal medicine
University Hospital Coventry and Warwickshire

Acute takes are busy and time pressured, however overarching all this is the wealth of learning opportunities that the take provides, yet these are not always utilised. As doctors we can often overlook pathophysiology, that's how 'Why is snot green?!' came to fruition.

Each day we have a 'gross' fact of the day: either myself or one of the acute team will generate a question that has been triggered by a patient they have seen. In the example of 'Why is snot green?!' a brief discussion about neutrophils and the immune system ensues, and then the team make it their mission to understand why snot is green and to delve deeper into the relevant clinical immunology. We all gather together for 10 minutes later in the day and discuss the findings.

Everyone learns something new or recaps on previous learning in a fun way.

As physicians we must continue to find innovative and quick ways to teach on the acute take to ensure learning opportunities aren't missed. Using the gross fact of the day not only encourages learning in juniors but also ensures that consultants continue to learn and develop. A big win all round!

How could this work for you?

- **What strategies could you use to frame the acute take in your workplace as a learning activity?**
- **What questions could you ask yourself or others to enhance the developmental opportunities provided? When would be the most impactful time(s) to ask these questions?**
- **How could you encourage multidisciplinary involvement? How could you ensure that the diverse knowledge and expertise of the group are used to enrich the learning experience?**

Top tips for maximising the learning opportunities afforded by the acute take

1 Set the tone for education early

Whatever your role, make contact with your on-call team early to establish who's who. A brief pre-take huddle will help establish the activity as a learning opportunity and enable all members of the team to become familiar with each others' learning needs.

2 Invite WPBA requests before the actual activity

Leaders, ask if your team require any WPBAs *before* the work of the shift starts. Team members, flag up your need for an assessment early. This will allow focus on personal learning points throughout the take and prevent the assessment becoming a mere tick box activity.

3 Ask questions to facilitate learning

Leaders, use questions both before ('What are your three learning points?') and after ('What would you do differently?') to focus your team on learning. The *one-minute preceptor* is an example:

- Get a commitment
- Probe for supporting evidence
- Teach general rules
- Reinforce what was done well
- Correct errors.

4 Allow spontaneous learning

An acute take will inevitably involve an element of the unexpected. Be open to allowing cases to shape the direction of learning for that day.

5 Be a learning role model

The acute take can often be an opportunity to experience something different from your usual daily routine. Whatever your position in the team, make an effort to be inquisitive and ask questions, making the most of your encounters with unfamilar conditions, procedures r scenarios.

Ward rounds

Ward rounds are complex social interactions and are critical to providing high-quality, safe care for patients in a timely, relevant manner. Their 'success' both in terms of their clinical function and as successful learning opportunities is dependent on many factors; preparation, staff provision, communication, teamwork and leadership style to name but a few.

As in the case of the acute take and board rounds, multidisciplinary involvement can increase the learning potential of the experience. But successfully accommodating a diverse range of knowledge and expertise is not without its challenges. In his first reflection, Dr Hussain Basheer describes an experience in which full inclusivity was prioritised, offering all members of a multidisciplinary group the chance to learn despite their diverse development needs.

Reflection

A fully inclusive approach

R 3.4

Dr Hussain Basheer
General internal medicine and respiratory registrar
London

I initially considered our ward round team to be too large and chaotic to provide a valuable learning experience. The range of experience was just too diverse; I suspected any teaching would be directed at medical students only.

I couldn't have been more wrong.

The first patient was suffering with asthma. With their permission, the consultant asked our physiotherapist to carry out the physical examination. An F1 doctor was delegated to ask the patient questions in order to support the diagnosis and an F2 doctor was given responsibility for the drug chart. Our medical student was tasked with going away to read up on asthma guidelines to present to the rest of the team at the end of the patient interaction. The bedside nurse and myself, then a brand new higher specialty trainee (ST3), were tasked with observing; crucial for the former as care coordinator and information provider for both patient and the team, and for me to gain insight into the whole process, with a rare but welcome opportunity to take a step-back.

At the end of the consultation all members of the team were asked to feed back; the physiotherapist presented her examination findings, the medical student presented the guidelines she had been asked to look up; the foundation doctors presented their management plan. The nurse summarised the key points to communicate to the patient and the wider nursing team. My consultant identified an area of strength and an area for development for each member of the team, before asking each of them to identify one thing that they had learnt from the case.

My consultant then asked me, away from the group, what I had observed. I identified how she had given every member of our team a purpose. She had allowed everyone to learn something or perform something new, no matter how small. Our student in particular was an active participant. She was encouraged to gather information, synthesise it and present it within minutes, as opposed to being merely a passenger. Everyone was challenged and empowered.

By asking me to act as an observer I benefitted fully from her efforts to role model a clinically effective, fully inclusive and richly educational ward round. It is a model of good practice that has informed – and will continue to inform – my own approach as I lead ward rounds myself.

How could this work for you?

- Which tasks within ward rounds could be delegated to different members of the team according to their knowledge and experience?
- What three questions could you ask yourself or others, before, during and after a ward round to encourage learning?
- Who has been a significant role model in your development as a health care professional? How could you replicate or adapt their approach?

Of course the intense demands of the clinical workplace mean that the model of a fully inclusive teaching ward round described by Dr Hussain Basheer is not always possible. In some situations, too much explicit focus on the learning and development of those involved can delay ward rounds to the detriment of their clinical purpose. Delay may necessitate some clinicians, particularly allied health professionals with other clinical areas to cover, leaving before the round is complete to the disadvantage of those patients seen last.

We have to strike a balance. The top tips in this section focus particularly on achieving this difficult, but extremely important, equilibrium between providing effective learning experiences while delivering efficient clinical care.

Top tips for maximising the learning opportunities of ward rounds

1 Be selective

Explicit facilitation of learning does not need to occur during every patient encounter. Utilise learning strategies in the context of unusual cases, cases which highlight important learning, or those which relate directly to the learning needs of the team.

2 Differentiate via delegation

A ward round is a multi-faceted process. Consider how different tasks can be delegated to members of the team according to their knowledge and experience. This will provide a sense of autonomy as well as the added challenge of gathering and synthesising information individually in preparation.

3 Let the team set objectives

Encourage team members to set objectives independently at the start of the round. What do they want to learn? What are they hoping to achieve?

4 Be conscious of role modelling

Regardless of clinical content, trainees and junior members of a team will learn by listening and watching more experienced colleagues in action. A conscious engagement in this process by role models and those who seek to emulate them can enhance the learning potential of this process.

5 Think out loud

Talking through thought and decision-making processes can be a powerful way for senior colleagues to draw attention to important elements of their practice. Equally, encouraging learners to verbalise thinking will support them in developing, consolidating and demonstrating their understanding. Your reaction to learners verbalising thinking can influence their confidence to participate in the future.

6 Utilise the power of questions

Questioning is key. Ward round leaders should differentiate the challenge of their questions according to the learner. Conversely, encouraging junior colleagues to ask questions themselves encourages a culture that celebrates and encourages those who remain constantly inquisitive and perpetually prepared to learn.

7 Imagine constant student involvement

Conducting ward rounds as if there is always a student present has the potential to consistently prioritise learning. Although the nature of your interactions will be different, the frequency that explanations, questions and challenges are offered to the ward round team should be the same as those offered to healthcare professionals at the very start of their careers.

8 Reverse roles

Encourage junior members of the team to lead the round: *the reverse ward round*. Senior colleagues and/or those from other disciplines can supervise, observe and provide feedback. This activity can be done selectively for one or two interactions, or the whole ward round if time allows.

Outpatient clinics

The final environment that we would like to highlight as a chance for patient-centred learning is the outpatient clinic. The demand on outpatient clinics for all healthcare professionals to deliver effective patient care, meet targets and ultimately prevent hospital admissions is increasing. It is important that the individuals who will be running these clinics in the future have adequate opportunity to develop their practice and hone their skills.

Opportunities to learn in this context are often limited to learners simply observing a senior colleague in action, a method which avoids any unwanted disruption to the time-constrained process. In agreement with literary sources on this subject we would like to suggest that this rather passive involvement does not fully take advantage of the learning potential of the activity.[6] In reflection 3.5, Dr Hussain Basheer reflects on the first of two different experiences in which strategies have been used to maximise the educational value of his engagement with outpatient clinics.

Reflection

The 'hot seat'!

R 3.5

Dr Hussain Basheer
General internal medicine and respiratory registrar
London

In my second year of core medical training, my consultant deliberately kept his clinic list free, months in advance, for the sole purpose of watching me practise in mine. I'm glad he did.

He sat, completely silent in the corner, watching me talk to and examine the patients.

When some of the patients looked in his direction, or started talking to him, he merely prompted them to look back at me; 'He's your doctor today'.

For the first time in a clinic, I felt empowered. I was supposed to be there. I was capable of making decisions.

His feedback was equally important. I learnt that I needed to brush up on my ophthalmology exam skills and diabetic retinopathy.

But I was competent. He trusted me with his patients.

The 'hot seat' is just one teaching technique that can be utilised in outpatient clinics. Case study 3.1 demonstrates another technique that may be useful when a particular skill needs to be learnt in clinic, and/or there are two students or trainees.

Case study

Pilot/co-pilot method of learning ultrasound clinical skills

CS 3.1

Gill Harrison
Sonographer, ultrasound programme director lead for teaching excellence
School of Health Sciences City, University of London

I first heard about the pilot/co-pilot method of teaching ultrasound clinical skills from colleagues at St Helens and Knowsley Teaching Hospitals NHS Trust and the University of Cumbria, while undertaking a project to expand clinical capacity for ultrasound education. Ultrasound clinical education to date has generally been on a one-to-one basis with one student working with an experienced clinical practitioner, often a sonographer. The pilot/co-pilot method involves one student undertaking the scan, while another student provides advice and support to help them achieve the required images.

This has since been used for students at City, University of London in the clinical skills suite. One student works on a case, either on the simulator or scanning a volunteer patient (the pilot). The other student (co-pilot) assists them by giving verbal support to suggest alternative methods to manoeuvre the transducer to achieve the requisite sections, provides advice on whether they have seen an organ fully or how to manipulate the equipment settings to optimise the image.

Using a 'buddy' system of new students working with more experienced students or someone from a different professional group can be a helpful way to transfer knowledge, share different experiences and learn from each other. A member of clinical staff is of course available, if needed, to provide additional support. The need for additional support is limited, however, as students provide each other with encouragement while developing critical thinking skills which are essential for their role.

We realise the demands of service provision will constrain the implementation of these strategies; cancelling clinics to 'hot seat' a trainee cannot be a regular occurrence for consultants.

Similarly, selecting an appropriate case for two students to perform a particular skill (beyond a dedicated teaching clinic with volunteer patients) may be challenging.

However, these examples clearly highlight the learning advantage of active participation. Even partially active participation, for example allowing junior colleagues to lead on just one part of a consultation, can significantly increase the educational value of this activity.

Trainees are of course encouraged to meet a certain number of WPBAs per rotation or year and demonstrate that they are seeing enough aspects of the curriculum.

The patient consultation in outpatient clinics is the perfect opportunity to meet some of these requirements, as our next case study from Leicestershire demonstrates.

The opportunity for active learning is not limited to the clinic itself as Dr Basheer's final reflection demonstrates (reflection 3.6).

Case study

The 'ACAT clinic'

CS 3.2

Dr Neeta Patel
Consultant in acute medicine
University Hospitals of Leicester NHS Trust

A recent survey found low morale amongst junior doctors in relation to WPBAs. As a result of this, an acute care assessment tool (ACAT)/ case-based discussion (CBD)/ mini-clinical evaluation exercise (CEX) clinic was set up at the Leicester Royal Infirmary.

Based in the acute medicine ambulatory clinic – GP and ambulatory unit (GPAU) – between 30–45 patients are seen during a normal working day. There is a combination of both pre-booked patients (new and follow-up) and new referrals on the day (from both the emergency department [ED] and GPs).

Junior doctors were invited to selectively choose five patients from the 'take' based on their presenting complaint and then review them, with an aim of completing an ACAT at the end of this process. Each patient would be reviewed by the junior doctor, followed by a senior review with the consultant participating in the assessment. At the end of this process, the consultant would give direct feedback to the doctor and subsequently complete an ACAT. Both CBDs and mini-CEXs would take place in a similar fashion, but would only require one patient to be assessed.

At the time, it was the consultant in charge of the clinic who would be involved with this assessment process. The junior doctor taking part in the assessment would be supernumerary and would attend on their clinic week, day off or after being given permission to be released off their base ward. It was ensured that they would only be involved in the clerking and assessing of the patient. All subsequent non-urgent treatments and management plans would be handed over back to the core GPAU team so that the doctor could be released from GPAU once they had completed the assessment.

The feedback from this process was highly positive. Junior doctors felt valued, as they were given one-to-one time with a consultant purely for an assessment purpose. Selectively choosing patients allowed them to curriculum map to competencies they had not yet achieved. And most importantly, being able to handover patients back to the core GPAU team ensured that they did not feel they were there for service provision.

As a result of this process, we are now aiming to utilise a clinic room in GPAU for this purpose once a week. It will allow junior doctors to book a date in advance. It will be facilitated by the acute medicine consultants, who will use their educational PAs in their job plan to ensure the assessment clinic is sustainable, while also releasing the GPAU consultant from this additional responsibility.

Reflection

Clinic list debrief

R 3.6

Dr Hussain Basheer
General internal medicine and respiratory registrar
London

I really valued running through my patient list with the consultant after clinic. It meant I had an opportunity to confirm I was on the right track, and I felt our patients were managed better as a result. If there was something I had omitted, this would have been picked up by my consultant.

She also used this as an opportunity to run through her own list with me. Hearing her think out aloud, how she managed her cases, and in some instances difficult situations, was really useful; I gained insight in how she thinks when running a clinic. I would end the day feeling like I had learnt about twice as many patients and their conditions in much greater detail than I would have done in isolation.

I think she learnt from me as well; she would hear something new about one of our patients, or one of their conditions. And sometimes, she would look to me for an opinion: 'What do you think we should do?'

How could this work for you?

- Does your organisation facilitate observation or participation in clinics? Which members of the team might be able to support in making this happen?
- How can junior colleagues be given more responsibility and autonomy in this setting? And more active learning? If there is more than one, can they help each other?
- How might you collaborate with other healthcare professionals in the outpatient setting? What new perspectives or expertise may they be able to contribute to your learning?

Top tips to maximise learning opportunities in outpatient clinics

1 Encourage targeted observations

Passive involvement can be avoided by targeting observations; observers can be asked to focus on specific aspects of the process, consider differential diagnoses or find out the answers to specific questions.

2 Consider autonomy

Allow the learner to see a patient alone with a view to them developing their confidence and own consulting style. This is of course dependent on patient consent, room space and time. Like case study 3.1, if you have two students or trainees, encourage them to learn from each other.

3 Switch roles

Allow junior professionals to take the 'hot seat', leading a consultation while being observed and subsequently receiving feedback from a senior colleague.

4 Designate time to debrief

If interactions are not possible while a clinic is running, allow time for a post-clinic discussion of patient lists. This is not only good patient safety practice, but helps to give junior colleagues insight into the thought processes of more experienced colleagues.

5 Take opportunities for assessment

A patient seen in a clinic setting is the ideal focus for a WPBA. Debriefs after consultations can be used to conduct these assessments in a way which avoids a tick box approach and facilitates learning. Like case study 3.2, consider dedicating a whole clinic that mutually benefits both the trainee's assessment requirements and a consultant's educational PA time.

6 Invite multidisciplinary perspectives

Consider multidisciplinary involvement in clinics. Inviting members of other professions to observe and then discuss consultations can bring different professional perspectives to the process. These discussions can provide a valuable learning experience for both parties, and for even the most experienced of healthcare professionals.

4 Learn by caring

Learning in the workplace is not limited to clinical information or patient details. Much can be acquired from listening to the experiences and emotions of staff, from all professions, and has the potential to positively impact workplace culture and the wellbeing of those who experience it on a daily basis.

Schwartz Rounds

Schwartz Rounds are a structured forum where all staff – clinical and non-clinical – can come together for an hour. They afford opportunities to learn about the emotional and relational aspects of care, and they develop understanding of staff experience from a human perspective. Each session involves a small number of 'panel' members speaking about something from their experiences in response to a theme, such as 'when things go wrong' or 'that patient I will never forget'; speakers focus on emotional and relational aspects of their chosen examples. This is followed by audience members speaking about their thoughts and feelings, triggered by the panel members' introductory vignettes, often adding examples from their own experience. The sessions are directed by trained facilitators and the panel includes a variety of participants. The multiprofessional audience can be large in number and can sometimes have over 100 participants.

These rounds originated from the experience of health attorney Ken Schwartz, who was diagnosed with terminal cancer in 1994. He established the Schwartz Center in Boston which was set up to help foster compassion in healthcare. The work of the Schwartz Center was centred on the belief that for a workplace or organisation to provide compassionate staff, they in turn must feel supported in their work.

The Point of Care Foundation supports organisations to introduce rounds. Many rounds are taking place every month in trusts up and down the country (172 organisations so far) and evidence shows that participants feel less stressed and less isolated, have increased insight and appreciation for each others' roles and that hierarchies between staff are reduced.[7]

'Pop-up' rounds at Ashford and St Peter's NHS Trust and 'team time' at West Hertfordshire Hospitals NHS Trust are shorter adaptations that benefit staff who might not be able to leave their workplace for an hour, or who may not want to be in a large group setting.

Case study

'Pop-up Schwartz Round' – St Peter's hospital

CS 4.1

Dr Peter Wilkinson
Clinical lead for Schwartz Rounds, Ashford & St Peter's NHS Trust

The concept of pop-up rounds came up around 18 months ago. We recognised that some staff members either found it impossible to get to the formal rounds, as they were working on the ward, or they were not prepared to be on the panel talking about their feelings in front of up to 90 people. In essence these are roughly half the normal round: 30 minutes, two rather than three panellists and held in a local environment. The latter could be a ward, a community setting or, as we did recently, in the office of our security staff.

Case study

'Team time' West Hertfordshire Hospitals NHS Trust

CS 4.2

Becky Platt
Matron of childrens services, paediatrics and paediatrics A&E
West Hertfordshire Hospitals NHS Trust

Despite our Schwartz Rounds being attended by up to 100 people every month, this still only represents a small proportion of the total hospital staff. The idea of 'team time' is to take the essence of Schwartz Rounds to the individual workplace, for smaller teams. The positives are they are shorter (15 minutes), they don't remove staff from the clinical area, and they can run more frequently if required. By using what you have on the ward (eg empty bedspace, staff room) the location can be more intimate and encourage participation. Staff can choose when to attend, however, as we know they are not for everyone.

It has increased the solidarity of my team. We have found out things about each other we wouldn't have otherwise.

How could this work for you?

- When and where could Schwartz Rounds occur in your workplace?
- Which challenges within your workplace could be addressed by the use of Schwartz Rounds?
- Which members of your team would be best placed to lead Schwartz Rounds?

Top tips for maximising the learning opportunities of Schwartz Rounds

1 Encourage openness

Promote a culture of openness and the positive aspects of talking and listening to each other.

2 Adapt for your workforce

If staff cannot attend or are put off by the standard larger group Schwartz Rounds, consider bringing a smaller version to your workplace.

3 Be inclusive

Invite all staff – clinical and non-clinical. This will develop insight into other perspectives and further understanding of other peoples' roles. Long term, this will improve morale and give a sense of belonging to everyone.

4 Avoid clinical talk

There should be some distance from any clinical talk, as this can be tackled in an actual debrief. The focus should avoid blame or case problem-solving, and instead highlight the emotional and social aspect of an event or working in your environment.

5 Facilitate

Good rounds are dependent on good facilitation. Individuals can apply for facilitator training at the Point of Care Foundation. A multiprofessional diverse steering group can help choose the initial cases and experiences for discussion, and the role of facilitator can be rotated.

5 Practice makes progress

The practical nature of the healthcare work means that learning is often achieved through doing: mainly through supervised clinical practice. At other times learning opportunities can be provided by low stakes, simulated situations. Here we explore the practice of *in situ* simulation and, in particular, how this clinical learning activity can be integrated successfully into the busy daily routines of clinical workplaces.

In situ simulation

Simulation is an opportunity for healthcare professionals, as individuals or teams, to practise clinical and ethical scenarios in a safe environment: it is psychologically safe for learners, and safeguards patients as it eliminates some of the risks associated with learning in live clinical practice and because learning from simulation is focused on improving the quality of care.

Simulation has advantages over learning in other contexts in the scope it offers for: providing exposure to rare events; controlling the complexity of the learning opportunity; controlling the passage of time; and permitting repeated rehearsal. Learning can be enhanced by dynamically altering complexity to keep learners stretched without overwhelming them.

Time can be slowed temporarily to support novice learners or support greater analysis of complex, fast-moving clinical activities. Time can be accelerated to promote learning by providing more rapid feedback on actions. Time can be paused to allow analysis and instruction. Additional loops of learning and quality improvement (QI) can be created by repeating all or part of a simulation after learning from the previous iteration. The feedback or debriefing process is crucial in ensuring what is learnt from a simulation scenario is reinforced and retained.[8]

Traditionally, simulation would take place in a simulation centre, away from the workplace. This has its benefits in allowing for high-tech equipment, mixing of participants from a variety of workplaces, avoidance of workplace distractions and 'baggage' associated with existing team relations, and a safe, confidential and relaxed environment for feedback. However this approach is dependent on the participants having the time to attend an off-site session. It may also be less suitable for QI of care processes for which the physical layout of a specific workplace is influential.

In situ simulation occurs within the workplace. The human and environmental factors of the workplace therefore become part of *in situ* simulation and participants are not away from their work duties for as long as it would be necessary for off-site simulation. With advanced planning and preparedness, *in situ* simulation can be flexibly timed to fit around clinical demands.

In case study 5.1, impromptu *in situ* simulation is delivered to a MDT, with a focus not only on clinical and non-clinical skills, but also on process-improvement.

Case study

Learning from the process

CS 5.1

In Hull and East Yorkshire Hospitals NHS Trust, Dr Makani Purva and team deliver *in situ* simulation training on the labour ward. This typically involves running short scenarios of an obstetric emergency, such as a haemorrhage, pre-eclampsia or cardiac arrest using a manikin or a simulated patient.

Midwives, obstetricians and anaesthetists are involved. The focus is on clinical and non-clinical skills, with an additional focus on the pathways and processes involved in delivering care in the real environment. The aim is to capture errors in the workplace before they can harm patients (latent errors). Some of the simulations are unannounced and impromptu, while others are planned and conducted as regular team drills.

Recently, one of these impromptu simulations involved a fire. Real smoke was used. Patients on the ward were informed in advance but the team was not. The ward was evacuated. This simulated fire was an excellent opportunity for the whole team to learn about the strengths and weaknesses in their responses and in the fire drill procedures, and therefore make the necessary corrections. Staff have been extremely positive about this type of *in situ* simulation as it provides an ideal opportunity to get the whole team together working to a common goal.

For more information see:
www.heyhils.co.uk

At the Homerton Hospital in East London, the value of *in situ* simulation has long been appreciated. There are five simulation fellows employed across gastroenterology, A&E, obstetrics and gynaecology, paediatrics and intensive care.

They run weekly *in situ* simulations within their departments. In case study 5.2 Dr Tareq El Menabawey, gastroenterology simulation fellow, explains how this learning activity has been integrated into the day-to-day practice of his department.

Case study

The 'low dose, high frequency' approach

CS 5.2

Dr Tareq El Menabawey
Gastroenterology simulation fellow
Homerton University Hospital, London

As the gastroenterology and general internal medicine (GIM) simulation fellow I co-facilitate weekly multidisciplinary *in situ* simulations on our admissions unit, fortnightly simulations on our endoscopy unit and weekly simulations on our medical wards. I work with one of our senior nurses from the simulation department. Interprofessional facilitation has been really effective in getting buy-in from both medical and nursing participants. *Opportunities for interdisciplinary learning on the wards has in turn fostered familiarity and good working relationships.*

A typical scenario can involve junior doctors and staff nurses when available. It takes an hour to run with 10 minutes to set up in a bed space with a manikin, tablet computer and observation monitors, and then orientate participants. The scenario runs for 20 minutes followed by a 20-minute debrief to discuss non-technical skills and any workplace impacts identified. Ten minutes are required at the end to tidy and collect feedback.

One of the main difficulties with *in situ* simulation is convincing teams of the value of 'downing tools' for an hour in a busy work day. However, at the Homerton where medical *in situ* simulation has been running since 2014, it is now so ingrained that trainees are really enthusiastic about it and value the opportunity to reflect on their practice. The patients also appreciate it: we surveyed patients where it was taking place and 100% felt reassured their doctors were undertaking simulation training and that staff would know what to do if an emergency happened to them on the ward.

The impact on individuals and the workplace has been tangible. We have had some great anecdotal feedback from participants who have come to thank members of the team after encountering a real life emergency similar to one we have run and felt they'd been able to call on skills developed during *in situ* simulations.

Recent surveys of Homerton staff found a statistically significant correlation with the number of times staff have attended *in situ* simulations and their confidence in performing a range of non-technical skills.

Also, latent errors such as unavailable medications or inadequate equipment have been identified and rectified, promoting a safer working environment.

It has been an amazing privilege to work with such an innovative and proactive approach to education and training; in my opinion it's a real exemplar for other trusts to follow.

How could this work for you?

- How does your work place afford opportunities for regular *in situ* simulation?
- What particular learning needs in your team could be addressed in this way?
- Which of your colleagues would need to be brought on board to make this happen?
- Who can help you source any equipment and storage you may need?

Top tips for maximising learning opportunities afforded by *in situ* simulation

1 Ascertain the situations that need practice

Identify gaps in your team's experience and confidence in dealing with critical scenarios, eg have they all seen a cardiac arrest before? Perform a quick team survey to explore possible learning needs.

2 Appoint appropriately

Who is best placed to lead on delivering simulation? Is there a simulation fellow, or intensivist colleague who can bring a different skill set and perspective from a different workplace? Can a permanent member of staff be tasked to lead? For example, a nurse in charge or PA with an interest in simulation.

3 Make it multiprofessional

Embrace the different skill sets in your workplace. Real life emergencies require collaborative responses. Use simulation as an opportunity to introduce people to each other and facilitate the development of knowledge and relationships as they work and learn together.

4 Don't overcomplicate

Sustainable *in situ* simulation makes use of resources readily to hand and uses the lowest level of fidelity necessary for the intended learning. More expense and time spent does not necessarily lead to greater learning.

5 Repeat regularly

Like the case study at the Homerton hospital (case study 5.2), run *in situ* simulations regularly, so it becomes part of the culture of the workplace. A well-established scheme will also boost team communication and morale, and ultimately improve patient safety.

6 Share professional experiences

Many of the learning opportunities explored in this document include sharing of experience amongst professionals. Role modelling which takes place during the process of ward rounds is an example of this (Section 3). Educational supervision and mentoring are highlighted here as examples of formal processes that support workplace learning mostly through discussion and sharing of experience.

Educational supervision

There is a pace of change and complexity in healthcare combined with loss of the traditional firm structure that has changed the relationship between trainee and supervisor. The clinical learning environment has changed; the focus has shifted from the centrality of teaching to the importance of trainee learning – and not just from doctors but the wider team. Navigating this new world can be bewildering and feel dehumanising at times.

How we capture the essence of what the firm was all about within our different multiprofessional and rather fluid team structures is a pivotal role for the educational supervisor (ES).

> 'An ES is someone who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements.'[9]

Clearly there are formal duties to fulfil in this role, such as completion of the e-portfolio and appraisals, but there is opportunity for so much more to enable effective learning and it isn't at the expense of huge time commitment.

An ES may be a mentor, teacher, boss, friend (or sometimes an obstacle) but perhaps the most important one is as a role model. An educational atmosphere is created through commitment to the role, setting educational expectations right from the start, and by demonstrating the value and importance of learning (eg timetabling meetings and not cancelling them; helping trainees overcome any obstacles to getting to outpatients; signposting learning opportunities; facilitating PACES teaching; real-time resolution of missed educational events). Indeed, job roles of the 2025 medical educator have been described as enablers of personalised educational experiences, signposters of educational resources, technology gurus, coaches, role models and designers of the learning environment.[10] When a trainee knows education and professional development are valued commodities we know they are happier and more fulfilled,[11] which can only benefit the organisation.

As an ES is in a position of continuity, they are able to foster relationships and social networks, are invested in a trainee's education and career progression, and can facilitate a sense of community. This is what was at the heart of the old firm structure. Designing such a learning and supportive environment should be grown with others across an organisation, such as with college/clinical tutors and the director of education, and the approaches implemented within teams. Co-creating showcase opportunities for sharing learning across the organisation is essential. This approach should not just be for doctors but for the multiprofessional team.

Case study

A successful regional approach to supervision

CS 6.1

Rebecca Black
Former head of School for Obstetrics and Gynaecology
Thames Valley

1. **Appoint trainee reps:** As a school, we separated obstetrics from gynaecology and appointed two consultants as leads. We then appointed trainee reps to help expand our simulation training programme, at a basic, intermediate and advanced level – they act as 'champions' for training and teaching sessions. They have proved popular and help the trainees get their curriculum sign-offs for leadership and organising teaching sessions etc.
2. **Social network:** As a school we fund £100 to put towards a BBQ, run by trainees on the first day in August, to which the ST1s are invited. A buddy system, like a mentorship scheme, has been organised by the trainees to promote community and another learning platform.
3. **Visibility:** On the technology front, we have subscribed to menti.com for feedback and trainee sign-in for our regional teaching sessions (which have been rated first in the country in the General Medical Council [GMC] surveys of 2015/16/17). The trainees have designed their own website (the deanery one was not felt to be useful enough).
4. **Teach!:** Specific teaching clinics have been organised, for both trainee and medical student benefit.

The ES now has data to hand to leverage change for their trainees. Learning, the clinical environment and working conditions are closely intertwined.[12] GMC surveys,[13] core medical training,[14] medical registrar quality criteria mismatch[15] and hours exception reporting for missed education opportunities[16] may help identify themes and triangulate poor education practice, and as a result be used to influence positive change. Hours exception reporting as part of a trainee's new contract has already started to have a positive impact on clinical working practice for trainees.

Case study

Using exception reports to inform improvements

CS 6.2

Professor Sue Carr
Consultant nephrologist / honorary professor of medical education
Director of medical education and associate medical director
University Hospitals of Leicester

The 2016 junior doctor contract included the opportunity for junior doctors to submit an 'education' exception report to highlight when a significant or regular variation from the agreed work schedule resulted in an educational opportunity being missed.

At the University Hospitals of Leicester, the exception reporting has been opened up to all junior doctors (training and non-training), and early experience in our hospital revealed that only 5 % of exception reports submitted were related to education issues. The number of education exception reports went up over the winter due to winter pressures as more doctors were unable to attend teaching clinics or formal education sessions were cancelled.

The education exception reports we did receive highlighted the problems trainees encountered accessing their training opportunities (particularly during the winter months) and enabled the education team to facilitate a solution so that doctors could fulfil their educational requirements for the annual review of competence progression (ARCP).

In the future, the collated data from exception reporting will allow the identification of problem areas and recurrent themes which have an adverse impact upon education and training, and act as a positive driver for change.

New allied healthcare professional roles such as PAs are fast-growing and add to the demand of effective supervisory practice. Supervising such roles, appreciating their value and providing appropriate levels of support all add to our own learning of the worth of the modern team in practice both in working together but also in learning together.

Reflection

Supervising physician associates

R 6.1

Dr Natalie King
Full time consultant and clinical lead in acute medicine
Head of the KSS School of Physician Associates

I was lucky to be involved in the integration of PAs in my trust in 2013; they have altered my perception of what could constitute a medical team.

Adding PAs to the team has created opportunity. Trainees largely get to their training days, they have a go-to person on the ward who knows how to get stuff done and can bring them up to speed after nights or zero days. They also appreciate that PAs who have worked in acute medicine for several years have acquired clinical knowledge and developed in their skillset. They enable me as a consultant by understanding how I work, and making me more efficient, and they are empowered to challenge me. Why? Because they are comfortable in our relationship built over time and I welcome their opinion. In old firms, only a senior registrar might feel able to do this, so it is refreshing to have old norms challenged in the modern workplace, by a profession that aren't doctors.

We have seen how PAs ease changeover periods with their organisational knowledge and how, as a team, we have more time for learning and development. Efficiency can release time, which supports innovations in shop floor teaching, for example in using point of care ultrasound. Trainees come first, my PAs know this, as rotations are short. However, they understand that the time they spend with me over the years fosters our relationship, and enables their own development as understanding strengths and weaknesses allows targeted development. For me, PAs have meant an expanded contingent of base staff at a ward level based on skill mix and not title.

Newly qualified PAs will take some time to learn within their work environment and the rate will vary just as it does with doctors. A named supervisor whom they see on most days, as well as consistent surroundings, allows a PA to flourish.

Take time to get to know the person and their background: PAs often have transferable skills brought from outside the NHS that they can bring to teams. It's not so much about spending an hour a week with each of them but 10 minutes here and there to check they are okay, allow them to feel the natural wobble that they all feel a few weeks in, but support them through it … all pretty similar to a new doctor really. The bonus for me is that I get to keep them! Within a year, it is great to see them do the same for the new F1s, recognising and empathising with them as they too have that wobble!

How could this work for you?

- What more could you do to create an educational atmosphere?
- What data might be used to affect positive change?
- What are the barriers to being an effective role model?

Top tips for maximising the learning opportunities afforded by educational supervision

1 Create an educational atmosphere

Set education expectations from the start and commit to the role as supervisor.

2 Role model

Be relentless in advocating the value of education and training to enable the trainee and their team to have good learning experiences.

3 Use data to leverage change

Influence positive change through collated data, particularly where patterns and themes are identified, and encourage trainees to report missed education opportunities.

4 Collaborate across an organisation with other educators to identify learning opportunities and how teams may learn together

A faculty of multiprofessional educators may identify and harness different learning opportunities available across an organisation.

For more information see:
www.rcplondon.ac.uk/education-practice/course/educational-supervisor-workshop-and-accreditation

Mentoring

According to the GMC, a mentor is someone who will provide you with guidance and confidential support. This support is not confined to clinical work but can also extend to professional relationships and career plans.[17] David Clutterbuck, a well-known authority on mentoring, defines the process as a means of offering 'offline help by one person to another in making significant transitions in knowledge, work, or thinking'.[18]

Mentoring relationships therefore provide a context in which professional experiences and life experience can be shared and learnt from. In addition, self-awareness, confidence-building and skills in SMART action planning are among a wealth of other learning opportunities provided by mentoring. Such significant learning and development potential emphasises the importance for healthcare organisations to find feasible and sustainable ways to develop mentoring activity amongst members of their workforce.

In the case studies below, we explore two examples where opportunities for mentoring have been successfully created in the midst of busy clinical workplaces. Case study 6.3 documents the establishment of a formal peer mentoring scheme in the rural context of north Wales. Case study 6.4 highlights the benefits of undertaking mentoring in the flow of everyday work. It should be noted that although the examples we use both illustrate engagement in the context of mentee–mentor, mentoring can happen in a multitude of formats. Group mentoring using the action learning set method is just one example. In addition it is also possible for a mentee to have more than one mentor – either at different times or simultaneously in respect of different aspects of their development.

The Hywel Dda peer mentoring scheme involves participants interacting in situations that are set apart from the flow of normal work. It is important to note that the approaches and techniques involved in mentoring can also be exercised 'on the job'. Case study 6.4 highlights the evolution of a formal mentoring scheme into more ad hoc, but no less powerful, mentoring interactions within an organisation.

Case study

Harnessing the power of peer mentoring among consultants and SAS doctors

CS 6.3

Hywel Dda University Health Board provides healthcare services to a total population of around 384,000 throughout Carmarthenshire, Ceredigion and Pembrokeshire.

In 2016 it was decided that an in-house mentoring scheme should be established for permanent members of medical staff, providing regular support throughout their careers within the health board. The scheme aimed to provide medical staff with the opportunity for peer support across the organisation which should:

- aid individual professional development, and improve each individual's ability to manage change and problem solve
- aid personal wellbeing through the development/consolidation of professional relationships.

The initial cohort, recruited in 2016, involved consultants who engaged in a 2-day programme of in-house mentor training facilitated by the Royal College of Physicians.

Peer mentoring pairs were then established amongst participants from different specialties and/or different hospitals within the health board who committed to engage in regular one-to-one peer mentoring meetings.

Since 2016 the programme has been developed to include specialty and associate specialist (SAS) doctors and further groups of consultants. This has created a thriving network of peer mentoring pairs across the organisation.

Chris James, lead for recruitment and mentoring, heads up the scheme and identifies some of the main benefits of this activity:

Doctors value the help of other colleagues in moving forward with issues such as job planning, achieving work-life balance and working with difficult colleagues. These issues are common to all doctors and peer mentoring can result in significant changes in the way they think about, understand and approach these problems. Improving a doctor's sense of personal well-being also impacts on that individual's professional practice, and on their personal and professional development. This, in turn, will hopefully improve the sense of medical engagement in the workplace.

Case study

Mentoring – a tool for learning and development amongst junior doctors

CS 6.4

In 2015 Lucy Havard, then a core medical trainee, established a near-peer mentoring scheme amongst junior doctors as part of a piece of masters degree research. Her research highlights the significant learning opportunities afforded by mentoring interactions.

'Experience enlightenment' was identified as a key benefit; a process of giving advice through sharing and drawing on past experience. Lucy identified that in near-peer partnerships this process aligned with Lev Vygotsky's concept of the 'zone of proximal development', which may be expanded and crossed through learning arising in conversation with a 'guide'.[19]

Near-peer mentoring provided mentees with the ability to extend their learning via discussion and the support of a more experienced junior doctor. The inherently social experience that mentoring embodies was also highlighted. According to theorists Kauffman and Mann, social engagement is a critical aspect of any learning process.[20] Mentoring therefore provides a prime context for learning and development. Role modelling, pastoral support and networking opportunities were also identified as significant advantages.

This research also explored the interaction between informal and formal mentoring.

Formal mentoring sessions were often a challenge to timetable and attend. On the whole, participants found informal mentoring and spontaneous interactions during the tasks of the workplace more encouraging and useful. However, the establishment of a formal mentoring scheme was still seen as important. As Lucy observes:

Just by participating in a mentoring scheme, mentors and mentees were helping to contribute to a growing mentoring culture which in turn encouraged informal mentoring which so many mentees found encouraging.

Medical literature heralds mentoring as a chance to 'reap enormous benefits for the mentees and mentors',[21] as 'a vital cog in the machinery of medical education'[22] and to 'have the capacity to transform a professional culture'.[23]

Case studies 6.3 and 6.4 demonstrate the capacity for mentoring interactions to provide powerful opportunities to learn.

Case study 6.4 highlights the fact that workforce participation can initiate the development of an organisational culture that is rooted in the precepts of this practice and therefore more readily affords opportunities to learn.

How could this work for you?

- **Could you join, adapt or develop a mentoring programme in your workplace? Who would you need to get support from?**
- **How could you focus mentoring activities to aid sustainability?**
- **How could mentoring approaches be integrated into everyday clinical practice?**
- **Who can you mentor? Who can mentor you?**
- **What would you like to give to, and get out of, mentoring?**

Top tips for maximising the learning opportunities afforded by mentoring

1 Prioritise the creation of formal mentoring schemes

As well as providing benefit in themselves, these schemes will foster a culture in which informal mentoring interaction is likely to develop organically in the workplace.

2 Have a clear strategy for encouraging mentoring

Target specific groups so that training can be tailored effectively. Make participation voluntary to ensure participants are genuinely interested in committing to mentoring partnerships. Try to engineer pairs that involve some professional difference; for example different specialties or seniority. Such arrangements create a certain degree of professional distance which encourages transparency and honesty.

3 Train your participants

Mentoring schemes are more likely to be successful if both mentor and mentee have common training, and a common understanding of key concepts and strategies. Using training providers that introduce mentoring in a specifically clinical context are effective. Matching pairs at the end of delivery works well; it is immediate and often happens spontaneously following the building of relationships during training.

4 Advocate mentoring agreements

Encourage mentoring pairs to develop an agreement between themselves before embarking on their mentoring relationship. Such agreement can support a shared understanding in regards to issues such as trial periods and how often meetings will take place. Training can provide sign-posting towards professional codes of practice and guidelines which can help inform the formulation of agreements.

5 Establish systems of administration and governance

In Hywel Dda the organisational development team has provided administrative support to the programme lead. In addition, a mentoring governance group has been established which meets quarterly to develop strategy.

6 Identify champions to support further participants

Commit to perpetual development of your scheme to suit the ever-changing context of healthcare. The Hywel Dda mentoring scheme has identified ‘champions’ who encourage medical staff to consider entering the programme, and provide information and networking where appropriate.

7 Share learning experiences

As we have seen in the case studies presented so far, learning in the workplace can be a collaborative process. QI projects and grand rounds are activities that can further expand learning, beyond the clinical workplace. In this section we argue that framing these activities as 'shared learning experiences' is key to maximising their learning potential.

Quality improvement

Learning and development are intrinsic to the practice of QI and play an essential role in enabling the projects themselves. The Berwick report (2013) emphasised the need for healthcare professionals to be taught and equipped to apply QI methodology: 'the capability to measure and continually improve the quality of patient care needs to be taught and learned or it will not exist'.[24]

Indeed the report itself was titled *A promise to learn – a commitment to act*. The RCP's QI programme for core medical trainees, created in 2010, was given the name 'Learning to make a difference'.[25]

Case study 7.1 demonstrates how the principles of this programme have been implemented into practice.

Case study

How to get started

CS 7.1

Dr Alice Turner
Honorary consultant respiratory physician
University Hospitals Birmingham NHS Foundation Trust

At Heartlands Hospital we have designed a QI training programme for core medical and foundation trainees, which comprises two sessions built into their teaching programme and two sessions incorporated into grand rounds. This has ensured that most trainees attend, given that both teaching and grand rounds are viewed as mandatory sessions of which they must attend 70% in any given year.

In the first session basic methodologies are introduced, such as the model for improvement, as well as the context in which QI sits for the hospital. For example we describe how trusts must include national audit results – and their response to them – in the trust quality account, so that any QI project working around national audit data is likely to be working in conjunction with the trust's aims and therefore more likely to be supported.

A second session details technical aspects of QI, such as run charts and data interpretation. The third session replicates a 'Dragon's Den' style pitching platform – albeit a bit kinder than the televised version – in which trainees can get advice on their project to date. The final session celebrates trainees' achievements via a QI prize ceremony. This last session occurs just after the ARCP period, so that the submissions required for ARCP can also be used to shortlist prize winners, hence trainees don't have too many extra things to do. We encourage trainees to use national audit data for their projects, and allocate mentors within the relevant specialties from those supervisors who have completed the RCP QI training.

A parallel training scheme runs regionally for respiratory StRs, in which WebEx is used to link trainees and provide support, as well as deliver similar teaching sessions. Our regional thoracic society sponsors an annual QI prize akin to the hospital one for more junior trainees. Next year we plan to begin training supervisors so that the undergraduate medical curriculum can develop the existing fourth year audit module to a QI one in future.

Recognition of the contribution that QI can make to improving patient outcomes is steadily gaining momentum throughout the healthcare system. With the help of bodies such as NHS improvement and the RCP quality improvement programme (RCPQI), healthcare organisations are at different stages of maturity in developing robust and effective approaches that place learning, particularly shared learning, at the centre of implementation. In Birmingham NHS trust, the recognition of QI as a shared learning experience is evident through the provision of multidisciplinary QI training (case study 7.2).

Case study

Taking a multidisciplinary approach to QI

CS 7.2

In University Hospitals Birmingham NHS Foundation Trust, multidisciplinary engagement is considered to be crucial to the success and sustainability of QI projects, an approach reflected in the trust's provision of QI training.

In 2016 a series of 1-day workshops were commissioned for consultants, reflecting their responsibility for training and supervising junior doctors in QI projects. Since then, therapists and senior nurses have also been able to engage with these opportunities to become equipped with the knowledge and skills necessary to plan, lead and engage with QI activity.

There are several key drivers behind this effort to enable involvement of a variety of healthcare professionals. One example is the need to involve permanent members of staff as leaders and contributors to QI activity. This strategy counters the destabilising effect of junior doctors' rotations.

Incoming trainees are able to learn from established members of staff as they pioneer new projects or engage in the implementation of ongoing projects.

The active involvement of a range of healthcare professionals allows QI activity to become a shared learning experience situation in which different expertise and perspectives are brought together to effect change. This increases the chances that the problem the team are trying to solve is fully understood. As any change is brought about together it is more likely to be successful and look towards sustainable solutions.

While we advocate the importance of shared experience and learning across multiple professions, of equal importance is the involvement of patients. As case study 7.3 shows, the origins of change can start from a patient's story, and with consent, form the narrative for an initiative that has lasting impact.

Case study

STOPfalls – a MDT QI project at Whittington Health

CS 7.3

Dr Julie Andrews
Consultant in microbiology and virology
Associate medical director, Whittington Health

We first heard John's story at a lunchtime grand round; a short hospital stay prolonged by 3 weeks because of a hip fracture sustained on a ward. With consent from his family, John's story then formed part of our future staff mandatory training.

We measured and shared data on falls incidence and number of falls with harm per month but they were both trending upwards. Focus of the 'falls group' had been on falls risk assessment paperwork and education around that. There was a growing desire to do more about prevention of falls. A multidisciplinary STOPfalls QI team was therefore formed; staff with a wide range of knowledge and skills, but with a shared passion and desire for change.

Although everyone in the STOPfalls QI team has the same common goal of improved patient safety outcomes, there are additional benefits of having different staff with varying backgrounds; one of the nurses had a brilliant idea of using toileting grab bags to ensure patients are not left at times of high risk transfer, another team member worked out a better way to capture data, and one of the doctors turned out to be skilled at graphics and designed an eye-catching logo.

The team are energised and meet other 'falls teams' at national networking events. They heard about 'Baywatch' (an initiative first developed by nurses at University Hospital Southampton NHS Foundation Trust where all staff look out for patients who may be at high risk of falling) and turned this into reality back at the frontline, enabling falls prevention to become 'everybody's business'.

As an organisation we sign up to family and carer involvement so visiting hours for patients who are at very high risk of falls are relaxed. Each of these interventions is trialled using PDSA methodology (Plan-Do-Study-Act); some are successful, but others are not.

The outcomes in terms of falls reduction have been relatively easy to measure; we have seen a 40% reduction in falls with harm which has been sustained over the last 6 months.

However it is the team enthusiasm and leadership skills gained that are more difficult to objectively measure but clearly evident to see. Multidisciplinary team QI projects may lead to an unexpected benefit of improving staff engagement and retention.

Our next case study suggests a means by which a repository of QI activity can provide a rich resource for shared learning opportunities between different rotations of healthcare staff, different departments and indeed organisations. Ongoing curation of such a repository should be considered at its inception.

Case study

The QI bank

CS 7.4

Jonathan Mamo, chief registrar for Solent NHS Trust, leads a project that aims to promote QI as a shared learning process. A key driver in this instance was the desire to allow junior doctors to engage meaningfully in QI projects despite the transitory nature of their roles.

Having connected with a variety of other organisations, Jonathan collated a list of project titles that had been successfully implemented and had a positive impact in the context of other NHS trusts. The list was used to form a database or QI bank that could be accessed by healthcare professionals across the trust.

This approach has not only allowed members of the trust to benefit from tried and tested projects from elsewhere in the country, but has allowed projects to remain 'live' in the event that the lead instigator, particularly junior doctors, move on as a result of rotations. Incoming staff subsequently are able to adopt these projects, sharing in and benefitting from the learning that has already taken place as they seek to develop that particular process of service improvement.

The recent RCP report *Unlocking the potential: supporting doctors using national clinical audit to drive improvement*[26] highlighted five different models of ways of working together as doctors and multiprofessional colleagues in our QI activity. This demonstrated the value of having a common goal, an interprofessional approach and network support.

Our final case study in this section is from the THIS Institute, which advocates a new, truly diverse perspective on collaborative QI practice: citizen science projects.

Case study

THIS Institute; using citizen science to boost healthcare improvement research

CS 7.5

Dr Rebecca Simmons
Deputy director
THIS Institute, University of Cambridge

THIS Institute (The Healthcare Improvement Studies Institute) aims to create a world-leading scientific asset for the NHS by strengthening the evidence base for improving the quality and safety of healthcare. We want to engage a diverse range of individuals, including NHS staff and patients, in our research, and will be using a multiprofessional citizen science approach to support our engagement.

Crowdsourcing draws on a large pool of people who individually make small contributions that add up to big efforts. This approach can be used in citizen science research projects, where 'citizens' – usually members of the public – provide inputs and valuable contributions despite not being formally trained experts in the topic of study.

The most obvious benefit of crowdsourcing is the ability to collect or analyse data on a much greater scale. A large crowd creates efficiency gains in terms of speed, throughput and cost. Crowdsourcing also offers new ideas for research questions and ways to solve problems – drawing on a wider range of perspectives. Citizen science projects also present an opportunity to engage non-researchers in the scientific process and for researchers to interact with the wider community. It can also help researchers better understand the perspectives of patients or members of the public, and ensure these are used to shape policy and research decisions.

Researchers interested in incorporating crowdsourcing into their work can make use of a range of existing online platforms and tools. With these tools, researchers can crowdsource data gathering, image classification, systematic reviewing, innovative ideas and funding. Researchers can take a number of steps to maintain data quality and scientific rigour and should consider how to motivate, retain and reward participants.

Those who work in and use the NHS know the healthcare system better than anyone else. THIS Institute will be asking for micro-contributions of their time to help produce evidence about improvement that is both highly relevant and scientifically excellent.

For further information about citizen science, please see our two learning reports on this topic:

Citizen science; crowdsourcing for research

Citizen science; crowdsourcing for systematic reviews

Sign up to receive news and updates about THIS Institute here: **www.thisinstitute.cam.ac.uk**

How could this work for you?

- **How is QI training currently delivered in your context?**
- **How is the learning from QI projects disseminated to encourage learning?**
- **Is there a multidisciplinary approach to QI projects? How could this be developed?**

Top tips for maximising the learning opportunities afforded by quality improvement projects

1 QI is a multidisciplinary activity

QI is not solely the domain of doctors. It can start from patient involvement. Equip a variety of professions within your workforce to plan, lead and deliver improvement projects so that learning can be shared across disciplines.

2 Value the involvement of permanent members of staff

This will not only support the sustainability of projects but will also provide opportunities for new trainees to join in with a process of learning involving those who have long-standing experience within the context.

3 Provide training, coaching and resources

The delivery of sucessful QI projects depends on staff being equipped with the necessary skills and knowledge. Explore online resources and training providers, but don't neglect opportunities to coach and advise during projects.

4 Build in time and headspace in job plans

Value and promote dedicated time to engage with project leading and delivery, coaching and learning.

5 Facilitate regular communication and support

Provide regular opportunities for staff to share, communicate and learn from each other as they navigate QI projects. Creating a QI bank, holding 'Dragon's Den' style events and regular surgeries with senior members of staff are some possibilities.

6 Celebrate and publicise success

Holding celebratory or award-style events is a great way to encourage staff, validate the efforts of staff and provide another opportunity to learn together.

7 Collect, curate and disseminate learning

Ensure that QI reports are efficiently collated and made accessible in order to support future improvement work.

For more information email: **qihub@rcplondon.ac.uk**

Grand rounds

Grand rounds are a well-established, large group teaching method delivered during the working hours at a hospital. When done well, they afford a variety of opportunities to learn about clinical topics, case-based learning, new guidelines and service roles. Traditionally, however, grand rounds are led by and predominantly aimed at physicians, raising the question of their applicability to the multidisciplinary nature of modern medical teams.

In Health and Social Care Trusts Northern Ireland, Dr Gareth Lewis has sought to buck this trend. By widening participation to include nurses, psychiatrists, microbiologists and ED consultants, grand rounds are developing into learning experiences that are shared across disciplines.

Case study

Innovating grand rounds

CS 7.6

Dr Gareth Lewis, an RCP chief registrar alumnus from Antrim Area Hospital in the Northern Health and Social Care Trust, Northern Ireland, succeeded in facilitating powerful interdisciplinary learning opportunities within his workplace.

During my RCP chief registrar tenure in Antrim Area Hospital I revised the weekly grand round postgraduate teaching programme. The lecture-based format was too restrictive, attendance variable and the general approach seemed a bit disorganised. Having been given responsibility for 6 months I wanted to bring about changes to ensure these meetings were a worthwhile learning opportunity.

My plan for innovation was driven by the context-specific needs of our organisation. Firstly, we had some safety incidents around NIPPY and AIRVO (see abbreviation list on page 4) – all to do with setting up and connecting the equipment. Secondly, the junior doctors didn't really know what was going on around issues such as admissions, discharge and patient flow – a big focus for my chief registrar year. Thirdly, we had some complex patients on our wards with, for example, eating disorders. There were other tertiary specialties (such as neurosurgery) that we only interacted with by email or phone call. Finally, there were some interesting QI initiatives that needed sharing and involvement of doctors to do the work.

As a result, I invited respiratory nurse specialists and some of the respiratory registrars to run an interactive, practical session on setting up and connecting AIRVO. I asked a specialist eating disorders psychiatrist to talk about how to approach, counsel and positively interact with these patient groups. Microbiology came and discussed some of the usual bugbears (too much Tazocin!). One of our ED consultants spoke about the ED/medicine interface, and an excellent talk on common neurosurgical issues from a neurosurgery registrar helped us to liaise more usefully with these teams. We had a nurse consultant come from the North West Utilisation Management Group in Manchester to show our junior doctors some of our very own data about ED admissions, bed demand and capacity to help them see their important place and role in hospital flow. Allied health professionals, pharmacists and managers also took sessions to raise awareness.

Dangling the carrots of continuing professional development (CPD), teaching observations, attendance certificates, and better referrals to the presenter's specialty were easy wins to get speakers and doctors along and involved.

In summary, my approach was rooted in the primary importance of keeping the human element in the workplace – putting faces and people to services and pathways. These grand rounds expanded the view of junior doctors to help them see the wider workplace and how they can contribute positively to bring these different worlds together in synthesis rather than collision.

How could this work for you?

- What are the barriers to grand round attendance in my organisation?
- Where and when are grand rounds held? What quick logistical wins could you employ to encourage participation?
- Who presents and what is presented at your grand rounds? Could this be diversified?

Top tips for maximising the learning opportunities afforded by grand rounds

1 Champion participation

Create a purpose or sense of imperative to attend. Consider competition by numbers from each specialty attended, and create quizzes and award prizes for the department that wins. At the very least, reward participation with CPD points or certificates.

2 Make it accommodating

Organise your environment so that it is inviting, and so that participants feel comfortable and are encouraged to sit in groups. Invite other professions to present, which may in turn encourage them to attend. Provide or allow for provisions and refreshments, so that individuals are not faced with a decision to either attend or eat lunch.

3 Focus your content

Surveying the learning needs of those within your organisation can help you appropriately tailor session content and design. What learning outcomes from a particular scenario or case should be shared with others? What can we learn from each other? What specialties or professions need more visibility? Invite patients to come and tell their story as per case study 7.3, in which a QI process was triggered.

8 Embrace technology -enhanced working and learning

We now live in a digital era. With 98.9 % of UK hospital clinicians using smartphones by 2015,[27] and an early 2017 survey suggesting that 64 % of the British public use some type of social media,[28] it is clear that technology-enhanced learning is an area of great potential and growing importance. Admittedly, there are many concerns to be raised about the use of social media in the healthcare setting. In all three of the areas we explore in this section, content and comment is largely unregulated, requiring users to act with discernment and sometimes caution as they engage in technology-enhanced communication and learning.

Embrace technology-enhanced working and learning

Despite concerns surrounding the use of technology-enhanced communication, this rapidly evolving platform of communication is simply too significant to be ignored. The Topol review is one such piece of work that is exploring the research, innovation and best practice in digital technologies for healthcare, while considering the implications for the training of its workforce.[29] Technology can be used as a powerful tool to support profession-specific learning, wider professional learning and service improvement within busy clinical workplaces.

Engagement in social media is part of daily life and can be beneficial for a variety of reasons; to engage with others, to learn, to collaborate and to teach. Topics such as patient safety, patient care, guidelines and clinical knowledge can be explored through technology. Distributed, socially negotiated knowledge online is now challenging traditional classroom-based knowledge acquisition.[30] Healthcare professionals can benefit enormously from sharing their practice online via a multitude of channels (see Fig 1), and in knowledge intensive sectors such as medicine there is a greater need than ever to keep up with the pace of change. Learning through social media allows those engaged to self-regulate their learning, and arguably brings a greater level of autonomy than traditional learning and teaching methods. When learners feel autonomous, they begin to feel like a true member of a clinical team. Self-regulation allows for higher self-efficacy and better performance.

To cover the full range of tools in this area would be beyond the scope of this report. As a result we have chosen to focus on instant messaging services such as WhatsApp, the concept of FOAMed (free open access medical education), the microblogging app Twitter and Twitter journal clubs. In this section we seek to present ways in which these tools can be utilised to support and enhance learning in and around clinical workplaces.

Fig 1 Selected social media and technological tools used by clinicians and allied health professionals

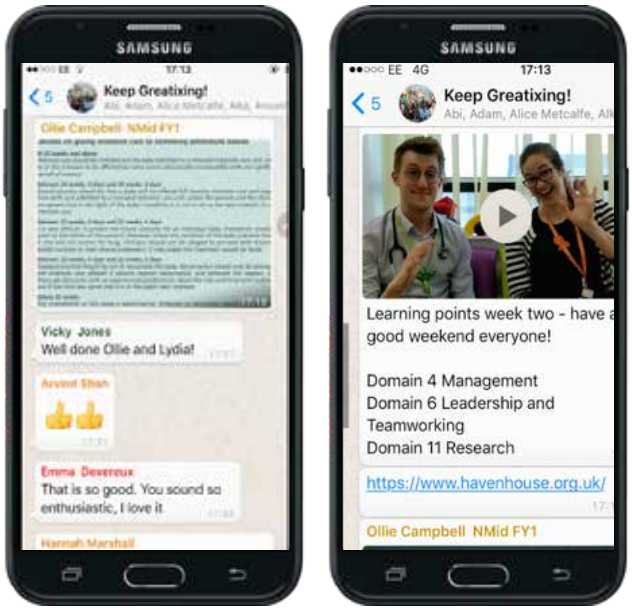
General and bespoke instant messaging applications

The use of WhatsApp – a popular instant messaging app for smart phones and computers – has expanded significantly in recent times. Clinicians have reported finding WhatsApp valuable in numerous ways, including as a teaching tool, as a method of communication on clinical matters and rostering decisions. One survey suggests that one third of UK clinicians use this or a similar messaging tool.[31]

WhatsApp has gained popularity amongst the medical profession in part due to its non-hierarchical communication style, the fact that users can communicate with more than one person at time (whereas a conversation returning a bleep is just between two individuals) and the speed at which individuals can communicate.

It has been shown to be a good way of keeping in touch, particularly in areas of medicine which can be quite isolating, for example general practice. Clinicians can consult each other on general issues, without mentioning patient details. In case study 8.1, Dr Okereafor highlights how WhatsApp can connect a workforce together, and allow individuals to share learning experiences in spite of being separated from each other because of frequent on-call periods and night shifts.

> ‘One survey suggests that one third of UK clinicians use WhatsApp or a similar messaging tool.’



Case study

Bringing the curriculum to life

CS 8.1

Dr Akudo Okereafor
Paediatrics specialty registrar
North Middlesex University Hospital

In April 2018 we identified an urgent need to prepare paediatric trainees and consultants for the launch of the new Royal College of Paediatrics and Child Health (RCPCH) curriculum in August. A survey demonstrated a lack of knowledge suggesting trainees would be unprepared for the new professional requirements.

We invented initiatives for 'bringing the curriculum to life' which would focus on identifying learning within our everyday paediatric experiences and help develop ways to share our learning. A WhatsApp group connects our paediatric doctors from foundation to consultant level enabling close teamwork and a forum for clinical and practical questions. By regularly discussing cases, reflecting on our practice and sharing our learning we can amplify our professional development, enhance team working and improve patient care.

One of our new curriculum improvement ideas was to develop a pro forma: 'learning points from our nights';

During handover on a Monday morning, both the neonatal and general paediatrics teams can highlight learnings from an issue. For example, unusual cases, difficult resuscitations, parental conflict, prescribing errors, safeguarding or management difficulties. These learning points were then mapped to the new curriculum with suggestions for departmental improvements and further reading. The completed pro formas are photographed and shared with the team via WhatsApp. Short videos were created weekly to present these learning points and other interesting paediatric teaching mapped to the curriculum domains with further reading also sent out, all via WhatsApp.

A repeat survey after 10 weeks demonstrated increased knowledge and confidence to use the new RCPCH curriculum among the same trainees and consultants. Embedding a culture of reflection after night shifts is an acknowledgement of the difficulties of shift work and has done the following:

- enabled discussions about decision-making and autonomy
- provided an opportunity to identify real-time problems and improvements
- promoted feedback within the teams
- encouraged formal assessments.

Given the nature of clinical rotas trainees often miss teaching opportunities, so disseminating the completed templates and bite-sized learning videos via WhatsApp enables absent trainees and consultants to benefit.

In summary

'Bringing the curriculum to life' has been a truly rewarding endeavour. A substantial growth in awareness and confidence to use the new curriculum was demonstrated. With continued enthusiasm, motivation and collaboration we will continue to discuss 'learning points from our nights' weekly and create short teaching videos mapped to the new curriculum. This learning pro forma, creative recordings and the use of social media to connect teams are all transferable tools which can be implemented by any specialty or department. Together these tools can greatly enhance learning, professional development and have a positive impact on patient care.

Many thanks to these key contributors:

Drs O Campbell, A Ong, H Jacob, J Pallawela, V Jones
North Middlesex University Hospital

N Davey
Quality Improvement Clinic

However, at present WhatsApp is not compliant with UK data protection legislation. Unsurprisingly therefore, 'doctorpreneurs'[32] have worked at creating a host of bespoke instant messaging services which do comply with data protection legislation. Amongst the most well-known are: Careflow Connect, MedCrowd, MedicBleep, Siilo, Hospify – dedicated healthcare communications apps, compliant with NHS guidelines on data and UK Data Protection legislation. Some apps can be used for clinician–clinician communication, others tackle some common service delivery issues, such as Dr Focused – an app which allows exception reporting and includes an online rostering system. The most popular apps are those which are free, simple to use and install, and provide the intrinsic reward to connecting with others.

Case study 8.2 documents the introduction of the MedicBleep app to the West Suffolk NHS Foundation Trust, and case study 8.3 describes the creation of the Induction app.

Case study

MedicBleep (an instant messaging app)

CS 8.2

Dr Nick Jenkins, medical director at West Suffolk NHS Foundation Trust, recently led a MedicBleep pilot in his hospital to try and resolve problems of the inefficient, old-fashioned pager system in use.

The response and results were overwhelmingly positive. As well as evidencing a saving in terms of staff time, and improved communication between teams, it also supported the need for a better Wi-Fi system to allow the app, or a similar alternative, to be rolled out in the future.

While Dr Jenkins acknowledged that the app is not the answer to every problem, it is a starting point. Long term, the ambition would be to try and integrate the app within the health care records systems, to save staff time which they could then dedicate to patient care.

For more information:
www.medicbleep.com

Case study

The 'Induction app'

CS 8.3

Halima Amer, chief medical registrar* at University College London Hospitals NHS Foundation Trust (UCLH), was tasked with delivering a QI project to help junior doctors in the daunting induction phases of their rotations. She chose to deliver this via the development of a bespoke app for UCLH and widened the target audience to include other UCL hospital professionals during induction to their new workplace.

Rather than creating an app from scratch, which would be expensive to develop and maintain to NHS-approved standards, she worked with developers to customise a commercially-developed app called 'Induction'. This hospital information sharing app is freely available.

The enhanced version with UCLH guidelines was launched in January 2018. It aims to help junior doctors and other professionals find useful information during induction into a new hospital (room numbers, bleeps etc.). Users customise the app and upload relevant guidelines.

The customised app has been piloted at UCLH and other workplaces have been using it as a template and customising it. It is truly a crowd-sourced learning tool since anyone can add information to the app, however if a junior doctor wishes to add new guidelines they must seek review and permission from the app customisation working group (currently the enhanced app creators).

Phase 2 will be to set up a permanent induction working group – junior doctors rotate frequently, so the project needs some longer term working group members. The idea is to target the app at the 'early adopters' as they will help grow and develop this resource.

Podmedics, the award winning UK-based software development company that developed the Induction app, has also been involved in building other healthcare apps. It describes itself as a digital provider of medical, surgical and specialty video and questions aimed at aiding medical education of junior doctors during their hospital placements.

For more information:
www.podmedics.com

* See www.rcplondon.ac.uk/projects/rcp-chief-registrar-scheme for more details.

FOAMed (free open access medical education)

> If you want to know how we practiced medicine 5 years ago, read a textbook.
>
> If you want to know how we practiced medicine 2 years ago, read a journal.
>
> If you want to know how we practice medicine now, go to a (good) conference.
>
> If you want to know how we will practice medicine in the future, listen in the hallways and use FOAM.'
>
> **From International EM Education Efforts & E-Learning by Joe Lex, 2012**

Engaging in learning opportunities online is an important way for the individual to develop a sense of autonomy. In his well-known work on the subject of motivation, *Drive*, Daniel Pink[33] focuses on three elements that motivate us in our work – autonomy, mastery and purpose. He argues that we are self-directional by nature, that we want to get better at doing things and that we need to feel that our work has purpose.

Engaging in learning online is one obvious way of becoming more self-directed. FOAMed is a term used to describe the concept of an international digital community of practice (CoP). As Mike Cadogan, co-founder of #FOAMed blogs states:

It is a way of sharing education resources – new blogs, vodcasts, and programmes. It is a way of asking questions pertinent to medical education, research, best practices, and guidelines. It is a way of bringing the global medical community together.[34]

Websites contributing to a vast network of medical online learning resources include:

www.doctors.net
www.doctorslounge.com
www.medhelp.org
www.lifeinthefastlane.com

Twitter and Twitter journal clubs

One of the key ways to engage in the FOAMed community is through Twitter or another suitable app. The Twitter microblogging site allows users quick and easy, instant access to blogs (informal online articles), vlogs (short video presentations) and medical literature. Posts are accompanied by hashtags and up to 280 character 'tweets' enabling users to seek out key words and 'follow' relevant themes. This platform is now being used to facilitate online versions of the traditional medical journal club (for example *The Skeptics Guide to Emergency Medicine* [SGEM]). This allows geographically separated people to participate in the discussion of journal articles or other resources, and allows people to participate asynchronously over a period of hours or days. A further variant is that authors seeking peer review or wider discussion of their work can post papers online and receive immediate, real-time feedback from readers around the world. However, this platform is largely unregulated, and therefore demands a degree of caution and discernment in use.

Nevertheless it undoubtedly provides clinicians with rich opportunities to learn. McGinnigle and colleagues identified multiple additional benefits of online journal clubs, including peer education, the abolition of the hierarchical nature of medicine, and the diversity of participants amongst other things. WhatsApp, being private and having provision for more expansive comments could be used as an alternative to Twitter in allowing the journal club to go online.[35]

However, engagement with Twitter, as with other online platforms, presents challenges. In case study 8.4, Matt Wiles, an anaesthetist and founder of @STHJournalClub (Sheffield Teaching Hospital journal club), explains how he overcame obstacles to ensure Twitter could be used as an effective learning tool.

Case study

Twitter journal clubs – lessons learned

CS 8.4

Dr Matt Wiles
Anaesthetist and founder of @STHJournalClub
Sheffield Teaching Hospital

I initially tried to use Twitter to allow colleagues who were not able to attend teaching sessions (specifically journal club discussions) to still participate in the discussion and assess the learning points. However, this is problematic as the discussion moves on very rapidly and unless people are focused on the task, the threads become rambling and disjointed. It's also difficult to tweet and chair a teaching session. I am an editor of the journal *Anaesthesia*, and we have tried Tweetchats about journal articles that have also been very difficult to moderate.

As such, I now use the Twitter account as a more static resource, signposting interesting papers/ resources, which can generate engagement and discussion over a much longer time period; this is important as many colleagues (especially senior ones) use Twitter infrequently.

A key learning point is to have a dedicated 'work' Twitter account, as people don't like general social chit-chat filling up their time lines. It is also important to limit the number of tweets – if I tweet at a meeting, I generally produce a summary of a session on my blog.* This avoids tweet overload (especially if multiple people are live tweeting at the same time) and allows additional input to be added, eg links to other articles.

* Blog: www.sthjournalclub.wordpress.com

How could this work for you?

- What digital tools and resources does your team already engage with?
- What learning needs in your workplace could be met by using digital tools?
- Which of your colleagues is best placed to advise on or develop learning in this way?
- How will you establish etiquette for the digital medium? And guard against breaches of confidentiality, copyright or other inappropriate sharing of material?

Top tips for maximising learning opportunities through technology

1 Be discerning

The body of learning resources available on the web is vast and largely unregulated. Approach with a critical eye. Leaders should make efforts to signpost less-experienced colleagues to sources that are relevant and reliable.

2 Set a professional tone

Consider setting expectation within the context of online forums. This will help to focus communications on professional learning rather than potentially distracting social interactions.

3 Identify local barriers to using technology

Can your workplace support the use of technology for learning? For example, can you make a business case to have access to more workstations, or install better Wi-Fi?

4 Encourage innovation

Like case study 8.3, use local information and issues to direct targets for solutions. Encourage those with an interest in digital health to have the freedom to develop their ideas. Identify your local chief clinical information officer to help.

5 Universal accessibility

Like case study 8.1, a WhatsApp group can connect an entire team, eliminating that hierarchy. It can be used as a platform to enable discussion and share learning points, particularly amongst individuals who may be absent from the learning event itself because of shift patterns.

Conclusion

Learning and working in modern healthcare teams is a challenge, but one that we must embrace. As workplaces become busier and teams become more transient in nature, the need to understand the workings of multiprofessional teams becomes greater. However, while the traditional 'firm' structure of medical workplaces has changed significantly, there still remain key concepts of those relationships and systems that are just as relevant today, such as role modelling behaviour and empowering individuals.

In this report we have showcased examples of creating brief learning opportunities in the clinical workplace and considered how to maximise their impact. Some of the case studies involve commonplace activities, others are more unique and novel. We have highlighted the rich opportunities afforded in social networks, both online and in the real world. *We also draw attention to the importance of time set aside and away from the 'on-the-job' setting that is dedicated to professional development and learning.* We hope this report has enthused the reader and provided encouragement that there really is a multitude of learning opportunities out there. Sometimes this is simply a case of 'tweaking' what is already being done, recognising the tacit learning that is already happening and harnessing that, or taking that 5-minute break as a learning moment.

At other times, it's about trying something new, like an online journal club or *in situ* simulation. The workplace continues to be a principal site for learning, and we hope that this report has provided helpful tips for enhancing learning in busy clinical workplaces while working with patients and within modern MDTs with rapidly changing membership.

Many of these reflections and case studies may already seem familiar to you, and this highlights that despite the ever-changing face of our workplaces the same educational values and experiences can still apply. All professionals still have the potential to learn by osmosis, and participate in the fusion of activities that is service delivery and training, and it is up to us as educators to facilitate this.

We hope that at least one of these case studies or themes raised will resonate with you and your workplace, and stimulate discussion, or better still practice. We are advocates of experimenting to see what works.

We want you to share your experiences with us, and continue to contribute to all of our learning in the workplace. If you have something you would like to share please email Hussain.basheer@rcplondon.ac.uk.

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