

Online generic induction for doctors in training: an end to repetition?

Multi-professional collaboration across the West Midlands has developed an online generic induction package consisting of 18 statutory, mandatory and general modules. The material incorporates best practises in e-learning, including an assessment component.

Induction is a prerequisite for employment in the NHS and has been a statutory requirement for many years. Although the emphasis is different, successful commercial organizations worldwide promote their image and ethos through induction (Brad and Vonnegut, 2009). The list of topics needed to be covered in induction is long – patient safety remains the central focus in the NHS. General Medical Council (2011) guidance, the NHS Litigation Authority (2011), the Care Quality Commission (2010) and the British Medical Association (2010) recognize the importance of induction in the NHS.

Trusts across the UK provide a broad spectrum of essential topics necessary for induction. Increasingly, trusts are recognizing e-learning as a valuable medium for delivering induction, but no ‘standard’ or ‘approved’ versions of induction are available for wider use other than those provided by individual trusts or commercially. Many existing e-learning packages on specific topics are detailed and exhaustive, making them inappropriate for induction.

Trainee doctors rotate through many different trusts within a region (sometimes to other regions) as part of their approved specialist training programmes. This exposes them to multiple inductions which take up valuable time, becoming repetitive and, as a consequence, risking reduced impact. Students and doctors may only come to realize the value of induction when undertaking placements overseas, where (in some countries) induction to

local systems and procedures is not always readily available.

Prescribing errors, health-care-associated infections, venous thromboembolism and mismatched blood transfusions are among some of the serious causes of morbidity and mortality in the NHS, the majority of which can and should be prevented. Recent unfortunate and unacceptable events bring safeguarding adults and children in the NHS and beyond into sharp focus. There is a general misconception in trusts that covering a topic at induction is sufficient to effect change in practice. Regrettably, this is not the case. The disparity in opinions on the content and length of material between those delivering and those undertaking induction is considerable. Anecdotal information suggests that induction may reduce prescribing errors and reduce health-care-associated infection rates. These data, mostly available in trusts, are

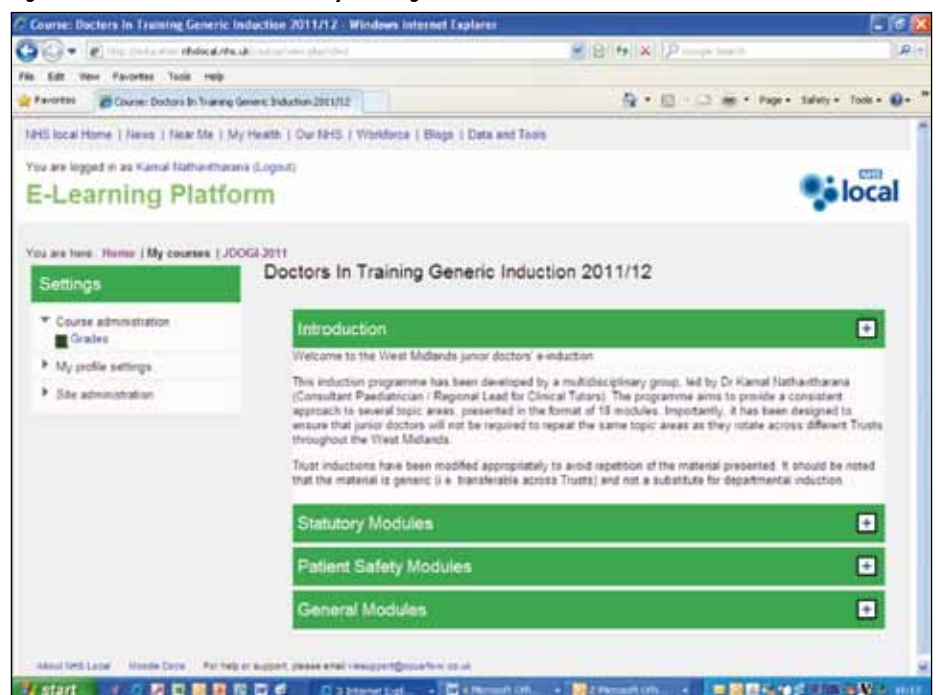
difficult to interpret as other confounding variables may also influence the outcomes noted. Robust induction, coupled with continuous reinforcement of good practice in the workplace and promotion of a non-complacent culture, are key components for further advancing patient safety.

This article outlines the NHS West Midlands Deanery’s doctors in training online generic induction (*Figure 1*), funded by a quality, innovation, productivity, prevention (QIPP) grant from the West Midlands Strategic Health Authority.

Rationale for deanery-wide e-induction

The NHS West Midlands Deanery commissions education and training in over 20 NHS trusts for over 4000 doctors and dentists. Every trust has its own procedures for providing induction for doctors in training, many of whom rotate at

Figure 1. NHS West Midlands Deanery online generic induction.



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4–6-monthly intervals across sites or trusts. This can result in doctors receiving more than one induction in a year. Although essential, much of the information provided is classroom-based, repetitive and variable in quality, requiring time away from service and training. Trusts satisfy regulatory requirements by providing a signed attendance sheet as evidence of compliance with induction. Many current systems fail to assess understanding, therefore limiting their impact on safe practice.

The purpose of the West Midlands Deanery online generic induction project was to develop a comprehensive web-based package of generic e-induction material that incorporated best practice in e-learning, aiming to both inform and engage the learner while fulfilling statutory and regulatory requirements. The QIPP funding, multidisciplinary, multiprofessional collaboration and good communication with all stakeholders throughout the project has ensured that the material generated is fully recognized across all trusts in the region. This eliminates repetition that had been happening hitherto and made the project efficient.

Generic e-induction modules

The project was launched in April 2010 by establishing a multidisciplinary working group, consisting of West Midlands Deanery and Strategic Health Authority personnel, doctors in training and representatives of all trust stakeholder groups, which met every month until July 2011. Terms of reference for the working group are listed in *Table 1*.

Project strategy, management and operation
Defining the modules required for generic induction
Setting and meeting project deadlines
Identifying module leads
Identifying subject matter experts
Appointing IT provider by competitive tender
Editorial support
Commissioning IT
Engaging with stakeholders
Communication

Having identified the modules required, the group went on to recruit module leads and subject matter experts through contacts in their trusts. The module leads worked with subject matter experts, ensuring that each module complied with the overall project aims, including content and format. Subject matter experts were a multidisciplinary, multiprofessional group who were well-recognized specialists in their respective fields.

Modules developed complied with best practices in e-learning (*Table 2*) and provided links for existing NHS, General Medical Council, College (e.g. Royal College of Paediatrics and Child Health) and public media e-resources. A total of 18 generic induction modules (*Table 3*) consisting of statutory, patient safety and general topics were developed following consensus after a wide consultation and collaboration within and – in some cases – outside the region.

The core group, module leads and subject matter experts collaborated with a commercial IT provider appointed by competitive tender, in full compliance with NHS West Midlands Strategic Health Authority policy. Modules varied in length from 5–40 minutes, depending on the topic, with the entire package taking up to 7 hours to complete.

An assessment component was developed to establish that the learner had absorbed the key learning points communicated in each module. Following wide discussion, the pass mark was set at 80% for each module. All materials were piloted by over 100 trainees (all grades), trainers and a range of other NHS personnel, with modifications being made where necessary.

Must meet statutory and mandatory requirements
Concise, but comprehensive
Easy access, i.e. user name, password
Well illustrated, interactive and easy to understand
Provides links to NHS and other recognized e-learning resources
Compulsory testing of knowledge on completion
Process and facility for easy updating by designated webmaster

E-induction material

The 18 modules, assessments and other related administrative material were hosted on NHS Local West Midlands and available for use from the end of May 2011, allowing sufficient time for completion before the August intake. Email addresses held on the Deanery database, generated at the time of recruitment of new doctors and ongoing trainees were used to communicate. Deadlines were set and reminders sent by text messaging. Secure electronic access to the material was provided through user names and passwords.

Successful completion of all 18 modules, followed by integral evaluation of the material by the user, generates a certificate of completion which has the advantage of being easily verifiable. An administrative facility enabling trust and deanery personnel to access the system in order to establish compliance was incorporated. The multiprofessional collaboration, ongoing excellent communication and active engagement of all trusts through every stage of the project have facilitated universal recognition of the generic online induction certificate. This

Statutory	Are you sitting comfortably?
	Health and safety
	Manual handling
	Fire safety
Patient safety	Infection prevention and control
	Blood transfusion
	Anticoagulation and thromboprophylaxis
	Prescribing
	Mental capacity
	Consent
	Safeguarding children
	Safeguarding adults
General	Audit, clinical and information governance
	Risk management
	Coroner and death certification
	Equality and diversity
	Conflict resolution
	Complaints

has enabled delivery of an up-to-date, robust generic induction which is both verifiable and transferable. Much of the repetition of material that has been happening for decades has been overcome, making the process efficient.

Completing e-induction

All trainee doctors in the West Midlands are expected to have completed the entire package, including assessments, before their August start. This, together with the multiprofessional collaboration, communication and engagement has motivated and persuaded trusts to modify their local inductions, avoiding repetition of generic topics covered by the Deanery induction. Local induction at trust level can now be more focused on trust- or site-specific mat-

ters, while not overlooking departmental induction (*Table 4*). The small minority of doctors who may not have completed generic induction for a variety of reasons will have the opportunity to do so as soon as possible after their August (or subsequent) start.

At the August start, over 3600 doctors had completed all 18 modules. The online induction material has a number of advantages, including ease of access at a time when it is convenient for doctors. The ability to work through the modules over a period of time, instead of having to do them all at one sitting, is also a benefit for users. This should enable better learning that is translated to practice, although the impact of this remains to be demonstrated.

Does induction count as work?

Induction is part of work, the provision of which is the responsibility of the employer. The employee also has a responsibility to ensure full engagement and active participation. Doctors in training (other than foundation year 1) have 30 days of paid study leave each year (Medical Specialty Training England, 2010). The West Midlands Deanery regards induction as being a professional requirement and time spent on induction should form part of the paid study leave entitlement. It is recognized that some trainees who come to the West Midlands will be completing their e-induction before their arrival in the region. However, the principle of entitlement for study leave should apply and be negotiated locally with the trust or department, if necessary, by involving the clinical tutor or director of medical education.

Troubleshooting

At the outset, the working group recognized two major challenges, namely engagement of trusts and IT.

Trust engagement and acceptance of the induction materials have been achieved through months of discussion, negotiation and collaboration. Despite the anticipation, the robustness of the IT system was placed under strain, especially when there was a surge in numbers of doctors simultaneously accessing the material as deadlines approached (*Figure 2*).

The Deanery information systems were also tested as there were a small but significant number of doctors who did not receive messages from the Deanery and/or were unable to access the material because of problems with user names, passwords or being overseas. A variety of reasons may have contributed to this, including inaccurate central data (lack of current email addresses in particular), email messages not being read or being diverted to spam mail, or inaccuracies in spelling of names.

Accessing material through trust and home personal computers has also proved difficult in some cases as a result of Flash and other IT-related matters. Problems with the IT system included user names, passwords, freezing screens, the system crashing and error messages appearing in the material. These have been addressed by increasing the bandwidth and capacity.

Table 4. Topics for trust and departmental induction

Trust induction	Share trust vision and values
	Meet key trust personnel
	Trust guidelines and protocols
	Trust IT systems (e.g. PACS, ICE, Bluespир)
	Physical orientation
	Referral systems
	Laboratory and support services
	Communication systems (e.g. bleeps, mobiles)
	E-prescribing
	Human resources and occupational health
	Junior doctor forum and education committees
	Grand ward rounds, weekly teaching, guest lectures
	Hospital at night and on call
	Bed management and discharge planning
	Emergency assessment units
Medical admissions unit and coronary care unit	
Postgraduate centre library	
Departmental induction	Meet educational and clinical supervisors and key personnel
	Duties expected
	Policies, procedures, guidelines
	'On call' rota
	Handover
	Audit projects
	Critical incident reporting
	Departmental teaching
	Administrative tasks
	IT for departmental tasks

Despite the best contingency plans, IT systems can often experience difficulties, especially at times of increased activity.

While the undoubted advantages of e-learning are clear, its limitations should not be overlooked. This has implications for the NHS where IT systems are currently being implemented or planned.

Doctors who did not complete their generic induction before the August start were asked to do so within 1 week. Failure to comply poses a risk as induction is mandatory from the training and employment perspective. Persistent non-compliance constitutes a breach of both the employment and educational contracts and can lead to disciplinary action. Doctors starting in September (or beyond) were notified of their later deadline for completion.

The future

The provision of induction and other learning experiences is not resource-neutral and must be justified in the current climate of austerity. Avoiding repetition and making induction and other NHS learning efficient is also the responsibility of regulators. Clear guidance is required on which topics should be covered, in what depth and how often they should be undertaken in NHS trust settings. Rigorous scrutiny of the rationale behind such guidelines is crucial.

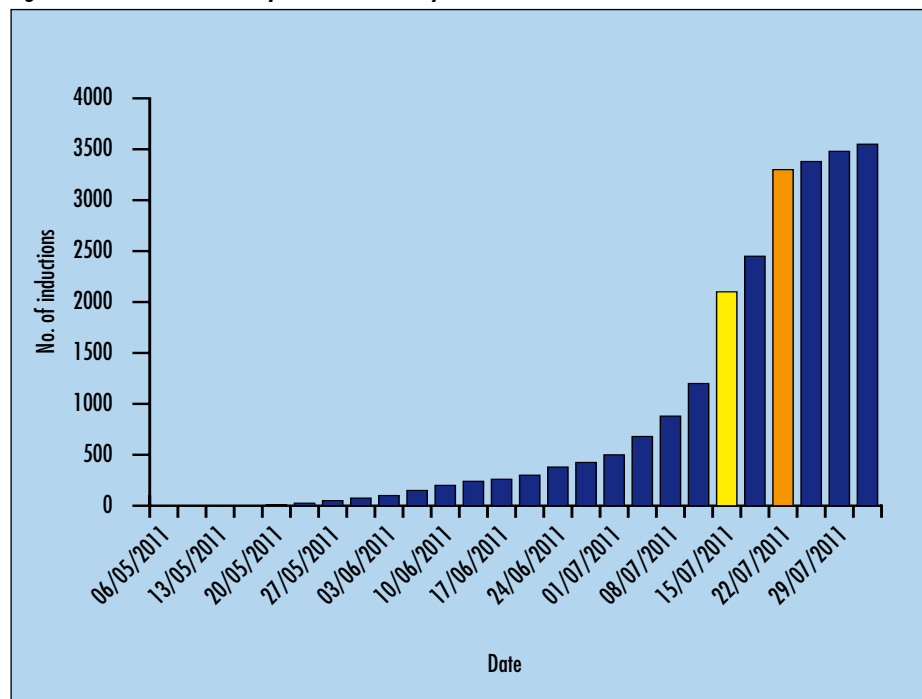
Key priorities for the 2012 edition include: updating where necessary, writing new questions (and testing quality) and IT, all of which require funding. The modules need to be made more concise by effective editing, enhancing their

impact without compromising quality. Robust IT – essential for the delivery of a project of this magnitude – requires appropriate funding and manpower support, no matter how innovative the project. Although the current focus is on trainee doctors, with appropriate support (and funding) this system has potential for wider application, including other groups of doctors (e.g. trust grades, locums and consultants) as well as allied health-care professionals. **BJHM**

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Conflict of interest: none.

Figure 2. Total number of completed inductions by date. Yellow and red bars indicate deadlines.



Bradt G, Vonnegut M (2009) *Onboarding – how to get your new employees up to speed in half the time.* John Wiley & Sons, Hoboken, NJ

British Medical Association (2010) Everything you need to know about shadowing. www.bma.org.uk/employmentandcontracts/working_arrangements/shadowinginductionjunior.doctors.jsp?page=2 (accessed 3 August 2011)

Care Quality Commission (2010) Essential standards of quality and safety. www.cqc.org.uk/_db/_documents/Essential_standards_of_quality_and_safety_March_2010_FINAL.pdf (accessed 3 August 2011)

General Medical Council (2011) *The Trainee Doctor. Foundation and specialty, including GP training.* www.gmc-uk.org/Trainee_Doctor.pdf_39274940.pdf (accessed 7 September 2011)

Medical Specialty Training England (2010) *Reference Guide for Postgraduate Specialty Training in the UK.* The Gold Guide. 4th Edition. MMC, London

NHS Litigation Authority (2011) *NHSLA Risk Management Handbook 2011/12.* www.nhsa.com/riskmanagement (accessed 3 August 2011)

KEY POINTS

- The West Midlands Deanery has developed an online generic induction for doctors in training.
- Eighteen patient safety, statutory and general e-modules, have been developed through multiprofessional collaboration.
- Modules incorporate best practice in e-learning, with an assessment component.
- Successful completion of all modules generates an easily verifiable certificate of completion, accepted and transferable across trusts.
- The consistent, standardized approach enhances patient safety and has the potential to end decades of repetition.
- Generic induction is not a substitute for trust or departmental induction.