Induction for senior house officers. Part I: The hospital programme

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Summary

The study was set up to examine how an induction programme can be designed to meet the needs and expectations of senior house officers (SHOs) beginning a new post in a hospital. A total of 63 SHOs, in five hospitals in the Anglia region, participated in standardised structured interviews up to 3 months after starting their post, by sorting a list of 38 possible induction topics in order of priority. Trainees' early induction needs were found to centre on day-one service activities, ie, information that enables them to undertake their service work efficiently and effectively, is particularly valued and required early. Information related to clinical education and training is also valued, but many trainees prefer it to be provided after they have been in post for a week or two. Much induction information can also be effectively conveyed in writing, with little or no need for additional formal presentation. We conclude that first-day induction programmes which strive to satisfy the range of trainee needs in one session fail to take account of the different priorities that trainees attach to induction information. Trainees do not want all information at once. Information of prime concern to clinical tutors, namely education, training and generic skills, is generally favoured after a week or two. To ensure that trainees' hospital induction needs are met in an efficient and effective way, programmes must be flexible and timely, and supported by comprehensive written information.

Keywords: induction; training; education

Hospital induction programmes integrate trainees into hospitals as quickly as possible, aiding smooth running, and reduce levels of anxiety, allowing trainees to feel more competent more quickly.¹ Induction programmes are strongly recommended in a number of reports and by postgraduate deans.^{2–7} Indeed, they are now mandatory for pre-registration house officers.⁸

Although most hospitals now run an induction programme, there is great variety in their content and style.³ This may be due to different published lists of suggested topics^{5,8} or to lack of systematic research in this area. Most programmes are chosen by seniors, rather than

by trainees as advocated,^{1,9} consequently, they may not meet the needs of trainees. Programmes often consist of short didactic presentations,^{1,3} which may not be the optimal adult learning method.¹⁰ Also, trainees may have a diverse range of experience, giving rise to different needs and expectations, which may or may not be fulfilled by an induction programme. This programme may be repeated regularly in the same format, irrespective of changing needs, whilst the programme's usefulness is rarely evaluated.³ Special induction problems also exist for trainees who are not synchronised with the main rotation times, and for other European and foreign graduates.

Published research discusses induction for pre-registration house officers^{1,3} or examines mixed grades of trainees.¹¹ It does not concentrate on the 'lost and breeding tribe' of senior house officers (SHOs).^{12,13} This research takes SHOs as its focus. It examines how an induction programme may be designed to maximise the chances that it meets the diverse range of trainees' needs and expectations.

Methods

A total of 115 SHOs starting a post in August 1996 or February 1997, in one of five training hospitals in the Anglia region, were invited to contribute to the study. There was a 55% response rate. Each SHO sorted 38 induction topics, collated from the literature,^{1–8} in response to three questions:

Question 1: How valuable would each topic be to you if covered on an induction programme when joining a new hospital (of real value / of little value)?

Question 2: At what stage of your post would these topics best be provided (within the first few days / after a week or two)?

Question 3: In what form would the information be most appropriately conveyed (in writing only / in writing supported by spoken information) and in what style (formal presentation / group discussion / practical activity)?

The data were analysed using Microsoft SPSS. Frequency counts were performed and Chi-Square and Mann-Whitney-U tests for non-parametric data employed.

Results

Sixty-three SHOs from 10 specialties were interviewed. Most (75%) of the trainees were in their first SHO post in the hospital and 25% were in the first SHO post of their career.

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Table 1 Responses ($n=63$) to the question "how valuable would each topic be to you if covered on an induction programme when joining a new hospital?"

Title	Real value (%)	Little value (%)	Unsure of value (%)
Ordering tests/investigations	89	8	3
Cardiopulmonary resuscitation	88	8	3
Study leave allowance	87	8	5
Education events/timetable	87	10	3
Service departments/pathology, etc	86	11	3
Bleeps/switchboard	85	14	1
Identification of educational supervisor	79	21	0
Acute/A & E admissions	79	16	5
Photo ID/badge	74	15	11
Pharmacy/tablets to take away	74	20	7
Discharge procedures*	72	29	0
Death certificates & coroner	69	29	2
Contract, terms & conditions	68	24	8
Meet clinical tutor	68	24	8
Car parking/permit	66	29	5
Careers advice	65	31	5
Dining facilities/out of hours catering	64	26	10
Tour of educational facilities	64	23	13
Hospital computer system	64	25	11
Sick leave/cover	64	24	7
P45, salary/wages	63	27	10
Keys/rooms/housekeeping	61	29	10
How & when to transfer patients	61	24	15
Paramedical support staff	59	34	7
Mess/tour of facilities	58	36	6
Communicating with GPs	57	37	6
Hospital forms/notes	56	33	11
Department/facilities	56	31	13
Local amenities*	55	31	14
BMA/GMC indemnity	53	32	15
Hospital tour	52	36	12
Ethical issues/consent*	45	45	10
Training policy/strategy (ns)	44	37	19
Health & safety/fire drill*	38	52	10
Bereavement/breaking bad news	38	55	7
Laundry/white coats	37	55	8
Independent/pastoral advice*	28	59	13
Chief executive's welcome	18	68	14

Chi-Square: all topics significant at $p<0.01$ except * $p<0.05$ & ns=non-significant (see text for explanation)

Table 2 Responses ($n=63$) to the question "at what stage of the post would these topics be best provided?"

Title	Within first week (%)	After a week or two (%)	No strong views (%)
Bleeps/switchboard	93	2	5
Keys/rooms/housekeeping	92	3	5
Ordering tests/investigations	92	5	3
Acute/A & E admissions	85	10	5
Photo ID/badge	85	10	5
Hospital tour	84	5	11
Service departments/pathology, etc	82	15	4
Dining facilities/out of hours catering	79	8	13
Mess/tour of facilities	79	7	15
Car parking/permit	77	11	11
Hospital forms/notes	76	6	18
Pharmacy/tablets to take away	76	19	5
Department/facilities	73	18	10
How & when to transfer patients	72	21	7
Contract, terms & conditions	69	26	5
Cardiopulmonary resuscitation	68	27	5
Hospital computer system	66	21	13
Discharge procedures	66	31	4
Laundry/white coats	64	15	21
P45, salary/wages	60	34	6
Death certificates & coroner	57	37	6
Tour of educational facilities	55	35	10
Education events/timetable	53	43	4
Paramedical support staff	52	24	24
Identification of educational supervisor	48	40	11
Communicating with GPs (ns)	46	31	23
BMA/GMC indemnity (ns)	40	37	23
Study leave allowance	37	56	7
Chief executive's welcome	36	8	56
Health & safety/fire drill (ns)	34	28	38
Meet clinical tutor*	33	49	18
Sick leave/cover	31	59	10
Training policy/strategy (ns)	29	45	26
Local amenities (ns)	28	48	24
Ethical issues/consent (ns)	28	41	31
Bereavement/breaking bad news (ns)	21	41	38
Independent/pastoral advice (ns)	12	45	41
Careers advice	3	71	26

Chi-Square: all topics significant at $p<0.01$ except * $p<0.05$ & ns=non-significant (see text for explanation)

Trainees were first questioned about the value of programme topics and their responses are detailed in table 1. Thirty-one of the 38 topics (82%) were rated 'of real value' by more than half the sample and only five (13%) were rated 'of little value' by more than half the sample (health and safety/fire drill, bereavement/breaking bad news, laundry/white coats, independent/pastoral advice, chief executive's welcome), reflecting the breadth of topics upon which programmes could valuably comment. For every topic, at least 10% of trainees gave a rating other than 'of real value', suggesting that whatever information is provided, it will be of little value to at least a small proportion of trainees. Topics to which fewer trainees attributed real value included those which contribute little to trainees' immediate concerns about how to function successfully in their new post. No single programme will meet the needs of all trainees, therefore ways must be found of minimising the provision of unnecessary information.

Statistically significant differences in value ratings between samples were found in relation to a small number of topics. Trainees who had worked in the hospital before assigned more value to careers advice ($p<0.01$), P45/salaries and wages ($p<0.05$), and educational activities/timetable ($p<0.05$) than those who had not. Trainees in their second or subsequent SHO post were more likely to value information on housekeeping/accommodation ($p<0.01$), laundry/white coats ($p<0.05$), car parking/permit ($p<0.05$). Those in their first SHO post were more likely to value meeting the clinical tutor ($p<0.05$) and information on independent pastoral advice ($p<0.05$).

Although the number of topics that show significant differences between groups are small, these findings suggest differing needs among SHOs. Consequently, programmes need to be sufficiently flexible to allow trainees to select appropriate information.

Trainees were then questioned about programme timing and their responses are detailed in table 2. More than half the sample suggested that two out of three topics (63%) would be best provided within the first week and more than half suggested that three of the 38 topics (8%) would best be provided at a latter stage (study leave, sick leave/cover and careers advice). The high proportion of trainees who had no strong views about the timing lends support to the view that there are topics that are not essential to provide during the first week, and could be appropriately provided later.

Topics which more trainees considered were best provided early, or about which they had no strong views, grouped around three themes: *orientation*: tour of hospital, mess/facilities and educational facilities; timetable of educational activities and events; *administrative and 'comfort' requirements*: bleeps/switchboard; keys/rooms/housekeeping; photo ID/badge; dining facilities/out-of-hours catering; car-parking and permit; contract terms and conditions; laundry/white coats; P45/salaries/wages; *essential knowledge and skills to practise from day one*:

Table 3 Responses ($n=63$) to the question “in what form would the information be most appropriately conveyed and in what style?”

<i>Title</i>	<i>Written only (%)</i>	<i>Written & formal presentation (%)</i>	<i>Written & practical activity (%)</i>	<i>Written & group discussion (%)</i>	<i>Unsure (%)</i>
Car parking/permit	86	8	3	3	0
Dining facilities/out of hours catering	85	10	2	0	3
Local amenities	83	3	3	0	10
Bleeps/switchboard	80	13	7	0	0
Keys/rooms/housekeeping	80	11	8	0	0
Sick leave/cover	79	17	3	0	0
P45, salary/wages	74	23	2	0	2
BMA/GMC indemnity	73	13	2	6	6
Discharge procedures*	71	29	0	0	0
Contract, terms & conditions	70	19	0	10	2
Education events/timetable	70	19	3	9	0
Study leave allowance	67	23	2	8	0
Paramedical support staff	64	28	0	4	4
Training policy/strategy	64	20	2	10	5
Hospital forms/notes	60	21	10	3	7
Death certificates & coroner	58	24	2	15	2
Pharmacy/tablets to take away	56	34	3	7	0
Service departments/pathology, etc	50	39	3	8	0
Ordering tests/investigations	50	36	8	6	0
How & when to transfer patients	49	24	5	14	7
Ethical issues/consent	48	17	3	31	0
Acute/A & E admissions	44	38	7	7	5
Communicating with GPs	41	25	3	26	5
Bereavement/breaking bad news	38	3	10	45	4
Hospital computer system	31	8	49	5	7
Cardiopulmonary resuscitation	2	5	92	1	1

Chi-Square: all topics significant at $p<0.01$ except * $p<0.05$ (see text for explanation)

ordering tests/investigations; acute/emergency admissions procedures; service departments; hospital forms/notes; pharmacy/tablets to take away; departments and facilities; how/when to transfer patients; cardiopulmonary resuscitation (CPR); hospital computer system; discharge procedures; death certificates/coroner; paramedical support staff.

Topics that a greater proportion of trainees favoured being provided after a week or two, or about which they had no strong views about their timing, grouped around three themes: *education and training*: identification of educational supervisor; meeting the clinical tutor; study leave arrangements; statement of training policy/practice; career advice; *generic skills*: communicating with GPs; ethical issues/consent; bereavement/breaking bad news; *hospital administrative requirements*: BMA/GMC indemnity certificates; health and safety/fire drill; sick leave arrangements/cover.

The findings suggest that induction should not be thought of as a one-off first-day event, but rather as a staged programme continuing into the post. Those topics of primary concern to clinical tutors, namely education, training and generic skills, appear to be candidates for

provision, not on the first day as often happens, but at a time when trainees have settled into their posts and can turn their attention from the immediate pressures of service to wider professional development issues.

Three topics which a greater proportion of trainees favoured being provided after a week or two fell outside these themes: chief executive's welcome; sources of independent/pastoral advice and information of local amenities.

There were some significant differences ($p<0.05$) on some variables, according to whether or not the trainee had worked in the hospital before and whether or not the trainee was in his or her first SHO post. Trainees new to the hospital were more likely to want the chief executive's welcome, information about study leave, laundry/white coats and local amenities earlier than those who were not. This provides further support for the need for induction programmes to be flexible, allowing trainees to select the topics about which they wish to receive information.

Finally, trainees were questioned about programme formats and their responses are detailed in table 3. Trainees sorted 26 of the

Table 4 A model of a staged approach to induction

<i>Stage</i>	<i>One</i>	<i>Two</i>
Title	An introduction to service	An introduction to clinical education & training
Aim	To equip trainees with the information & resources to deliver service from day one	To equip trainees with the knowledge & skills to maximise teaching & learning opportunities (formal and informal)
Content	Hospital-wide services/information	Hospital-wide approach to education & training and advice on how to create and use teaching & learning opportunities (formal and informal)
	Departmental services/information	Departmental expectations, what trainees can expect to receive & what is expected of trainees. Planning career/role development
Format	Written advice on all induction topics (service & training)	Written advice on educational events, study leave processes
	Formal presentations where necessary on service issues only, to support written materials	Group discussions with Clinical Tutor on how to get the most out of training opportunities
	Practical activity on eg, CPR, use of computer system	Formal meeting with educational supervisor/clinical tutor/careers counsellor

original 38 topics (excluding those which could only be provided in one format, eg, a tour) according to the format which they considered the best. On only seven topics (27%) did more than half the sample suggest that presentation in addition to written form was required. Topics particularly amenable to group discussion included the generic skill topics of ethics/consent; communicating with GPs, and bereavement/breaking bad news. Those particularly amenable to practical activity included CPR and use of the hospital computer system.

Trainees who had worked in the hospital previously, as compared to those who had not, were more likely to want information presented to them orally as well as in writing in relation to: the hospital computer system ($p<0.01$) and paramedical support staff ($p<0.05$). This was also the case for trainees in their first SHO job as compared to those who were not, in relation to: a statement of training policy/practice ($p<0.05$), and how and when to transfer patients ($p<0.05$). Trainees in their second or subsequent SHO post were more likely to want information presented orally as well as in writing on: CPR ($p<0.05$); keys/rooms/housekeeping ($p<0.05$), and the hospital computer system ($p<0.05$).

Thus, although trainees value information on a wide range of topics, much can be conveyed in writing. This written form has the advantage of being available as a reference source to be used as required and also allows the selection of information according to need, rather than requiring trainees to filter out irrelevant information as it is presented.

Discussion

How can hospital induction be improved? On the basis of these findings, a two-stage approach to induction is proposed (see table 4). This approach would reduce disruption to service during the induction period and place fewer demands upon trainees at a time of great anxiety, allowing them to absorb information over time. This model integrates hospital induction with departmental induction, so providing a coordinated approach. Departmental induction is the subject of an ensuing article.

Stage one, on day one, provides essential service information. Stage two, provided after a week or two, focuses on education and training. The practical problem of getting SHOs together for stage two can be minimised by using established lunch-time education slots which trainees would ordinarily attend. Generic skills training,⁵ where required, could flow from stage two sessions.

From the findings of this study a number of 'take-home' practical guidelines can be suggested when organising hospital induction programmes (box). Induction programme organisers are faced with an increasing variety of suggestions and standards concerning information that may be appropriate for programmes to contain, eg, health and safety regulations. In addition, stakeholders other than the trainees, such as the coroner's officer,

Practical guidelines for organising a hospital induction

- leave little to chance by providing comprehensive information and advice
- use written as well as oral advice to provide a reference resource
- comprehensive written advice ensures its availability to trainees not synchronised with the main rotation times
- use a staged approach that addresses trainees' basic 'comfort' requirements as early as possible
- provide information on education, training and generic skills later
- vary the presentation of information by using practical activities and restricting formal, oral presentations to essential information only
- remain conscious of trainees' different needs and structure the programme accordingly, eg, ask trainees who have worked in the hospital before to arrive after the tour
- monitor, evaluate and adapt the programme to meet changing needs over time

infection control and fire officers, may well have differing views on the optimal programme content, timing or format. Thus it is important for organisers to note that some topics may be vital to provide, despite trainees attaching less value to them. At the same time, organisers face conflicting time constraints between service commitments and education requirements. Consequently, all of these factors have to be placed into the institutional contexts in which programmes take place. Variations between induction programmes are therefore inevitable because compromises will be necessary. To facilitate these compromises, collaboration and partnerships will be needed and this is especially important between trainee and trainer, eg, as learning contracts. Objective, as well as subjective, evaluations of the programmes and their value and effectiveness in 'real-life' clinical contexts, using validated outcome measures, is also essential. Well planned and efficient hospital induction may then allow enhanced trainee performance and maximise the quality of patient care provided.

Conclusion

Hospital induction programmes are important and highly valued. Programmes often consist of one-off, first day collections of didactic presentations which may not meet the diverse range of needs that trainees have, nor their preferences for style of presentation or timing. Flexible, timely programmes, supported by comprehensive written information, are needed. This research has led to the construction of a two-stage model for induction, based on the sound educational principle of assessing trainees' needs. Stage one focuses upon trainee capability to undertake service work and to respond to emergencies from day one. Once trainees feel in control of the service responsibilities, stage two focuses upon clinical education and training. An effective induction programme does much to smooth the process

of assimilation of new information. Where hospitals provide sound, well-designed and timely induction programmes, trainees receive the information they need, at a time when they need it, and in a format that makes the process valuable and interesting. Such programmes remove much of trainees' initial anxieties enabling them to move quickly and comfort-

ably into making an effective contribution to service and to profiting from training provided.

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- 1 Gale R, Jackson G, Nicholls M. How to run an induction meeting for house officers. *BMJ* 1992;**304**:1619-20.
- 2 Committee of Postgraduate Medical Deans and the UK Conference of Postgraduate Deans. *SHO training: tackling the issues, raising the standards*. Discussion paper. London, January 1995.
- 3 Standing Committee on Postgraduate Medical and dental Education (SCOPME). *A good start. A report on job induction for hospital doctors and dentists in training*. London: SCOPME, 1993.
- 4 General Medical Council. *Recommendations on general clinical training*. London: General Medical Council, 1992.
- 5 Royal College of Physicians. *A core curriculum for Senior House Officers in general (internal) medicine and the medical specialties*, 2nd edn. Royal College of Physicians of London, 1997.
- 6 Royal College of Physicians. *General professional training. The Royal College of Physicians guide for trainees and trainers*. Royal College of Physicians of London, 1995.
- 7 British Medical Association Junior Doctors Committee. *Junior doctors- the new deal*. London: British Medical Association, 1991.
- 8 General Medical Council. *The new doctor*. London: General Medical Council, 1997.
- 9 Salter R. The US residency programme - lessons for pre-registration house officer education in the UK? *Postgrad Med J* 1995;**71**:273-7.
- 10 Knowles MS. *The adult learner: a neglected species*. Houston, TX: Gulf Publishing, 1978.
- 11 Willaims JG, Cheung WY. Induction training, career counselling, and performance review: views of junior medical staff. *Postgrad Med J* 1998;**74**:411-5.
- 12 Dillner L. Senior house officers: the lost tribes. *BMJ* 1993;**307**:1549-51.
- 13 Harris E, Ferreira P. Training senior house officers. *BMJ* 1997;**314**:692-3.