

Developing A Research Culture Through The Conduct Of Studies That Require A High Level Of Staff Participation Across The Organisation

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Abstract

This paper describes how practical support can be given to achieve high staff participation rates for research at an NHS Trust. This promotes the development of a research culture with benefits for patients.

Key Findings

- The establishment of a research strategy for an NHS organisation can set out a clear vision of how a research culture can be developed to benefit patients.
- Decisions can be made in relation to the deployment of limited resources so that implementation of the research strategy can be optimised.
- Practical measures can be devised to ensure that clinicians can easily participate in some forms of research. This can result in a high level of research activity and a raising of awareness of research to key staff which supports the delivery of the research strategy.

Introduction

The East and North Hertfordshire NHS Trust views research as a core function and has a research strategy¹ that has a vision to enhance patient experience and outcomes through research opportunity and innovation for all patients and all staff. This paper describes three cases studies that demonstrate the practical ways that the Trust can support the set-up and delivery of research that involves staff as research participants. These are presented as examples of how research can become part of everyday considerations of the Trust rather than viewed as an additional activity and are a further positive indicator of progress with implementation of the research strategy and other examples have been published.²

Research Activity At The Trust

The Trust has particular research strengths in the specialty areas of cancer, renal and cardiovascular though it has a large number of areas which are now becoming research active (See Table 1).

Trust Specialty Area	Number of Studies	% RCT	Research Participants	% RCT
Cardiology	14	57.1%	414	33.3%
Diabetes	10	90.0%	22	95.5%
ENT	5	20.0%	239	32.6%
Renal	30	16.7%	727	2.8%
Cancer	66	69.7%	523	34.8%
Supportive Oncology	7	28.6%	158	19.6%
Grand Total (all)	161	49.1%	2715	19.9%

Table 1: The number of research studies open and the number of research participants for April 2016 to March 2017 broken by area of research and proportion of Randomised Controlled Trials (RCT)

The Importance Of Having An Organisational Structure That Supports Research

The Trust has structured the way it manages research in a way that is different to most NHS organisations. The main difference is that the Trust has a full time Associate Director of Research and Development who reports to the Medical Director. All other aspects of research are under the leadership of the Associate Director. This enables the Trust to have a single point of contact for all research and thus the operational capability of the Trust can be directly managed to deliver the research strategy. This differs to situations whereby research support is tightly managed at a 'research group' level and each groups seeks to optimise the delivery of their research rather than contribute to the optimal delivery of the Trust's research strategy.

From a practical view the ability to direct organisational resources is important when it comes to the delivery of studies that require support from across the Trust.

The way in which this support is provided can also have a significant impact on research activity. The three cases studies illustrate various nuances of how this can be achieved but first it is necessary to examine the arrangements for research management and governance.

The Role Of Research Governance And Management

In order for research to go ahead at the Trust there is a need for various aspects to be considered. These include the review of the two following operational issues:

- Is the proposed research legal and does it comply with ethical and other regulations?
- Is it feasible to deliver the proposed research at the Trust in terms of access to patients, facilities and staff?

However, the Trust has the opportunity to support a much larger number of research projects than it has resources to deliver. In addition, each project differs in the way that it contributes to the delivery of the research strategy and the resources it requires. This allows choices to be made about which studies are desirable to support. A strategic assessment approach is used so that the many and differing wants and needs of researchers are balanced with the requirement to deliver the Trust's research strategy.

The research management and governance team ensure that the Trust agrees to support studies that are both desirable from a strategic perspective and also comply with legal and regulatory requirements.

The Role Of Research Delivery Teams

The delivery of a single research project at the Trust requires the co-ordinated working of a very large number of people from all kinds of professional backgrounds. In essence (and highly simplified) actions have to be taken so that a protocol is followed and data are collected and reported accurately in a timely manner. This requires a highly competent, well trained and organised team to ensure that the protocol is followed, fully informed participant consent is taken and documented and that the data is complete and accurate. The following three case studies illustrate some of these aspects.

Case Study 1 – iHype Intraoperative Hypertension In Elder Patients In UK Hospitals

Intraoperative hypotension (also known as low blood pressure) is thought to be very common during surgery. In patients aged over 65 years, this may lead to an increased risk heart attack, stroke, kidney failure and death following surgery. The purpose of this study³ was to determine how often low blood pressure occurs during operations in elderly patients in the UK and whether this is linked to a higher risk of complications.

The Trust viewed participation as being strategically important because it sought to answer a research question that would have a potentially large and immediate impact on patient care, it took place in theatres and treatment centre which are areas which it was a thought useful to further develop research activity, and it would involve large number of staff as research participants.

A research team was brought together and this included a consultant, a registrar, a senior research nurse and a clinical trial co-ordinator. The Trust was one of 198 centres spanning the UK taking part and the study comprised the distribution of questionnaires to both trainee and consultant anaesthetists over a 48 hour period.

The response rate was 100% and all 26 relevant staff completed the questionnaires. This was made possible because of a number of supportive measures:

- The importance of the study was discussed at an audit day prior to the research. A number said they did not like the form as the questions were vague.
- The anaesthetists were able to complete the questionnaire, which took five minutes, during their usual working day.

Case Study 2 – The 2nd Sprint National Anaesthesia Project (SNAP-2): Epidemiology Of Critical Care Provision After Surgery

The study⁴ sought to examine the practical experience of NHS Trusts where admission of high-risk patients to critical care after surgery is a recommended standard of care. The study sought to answer the following question "Does immediate postoperative critical care admission improve outcome after surgery?"

The approach was based around a single week and observations were made on all patients undergoing surgery involving an overnight stay and all anaesthetists and surgeons were asked to complete a single questionnaire about their practice related to risk stratification and postoperative critical care referral.

The Trust viewed participation as being strategically important because of the relevance of the research questions and because it would involve a large number of patients and staff.

A research team was brought together and this included a consultant, a registrar, a senior research nurse, five research nurses and a four clinical trial co-ordinators. The Trust was one of 282 centres and the project was run over a seven day period. The response rate from staff was 100% and all 243 staff completed the questionnaire. A number of measures supported this:

- The operational delivery of the study came under the leadership of a Senior Research Nurse who knew how to organise the conduct of the study and was able to generate enthusiasm and motivation.
- Preparation was vital. A local paper form was devised to separate data capture from data entry into a computer via an electronic data entry system portal. This was important because this reduced the time to capture the data from clinical staff and data entry via non-clinical research support staff was possible. In order to enter all the data a large number of non-clinical research support staff worked additional hours over a number of weekends to meet the study timelines.
- The clinical research support staff also adjusted their working hours to make sure that there was a research presence was at theatres at the start of the surgical list.
- At the end of the day all completed data forms were reviewed for completeness and any missing data was subsequently identified and obtained on the same day.
- During the deployment of the study a single point of contact was established to address all practical queries in relation to the delivery of the study.

Case Study 3 - The Prospective Evaluation Of High Intensity Specialist Led Acute Care (Hislac) On Emergency Medical Admissions To NHS Hospitals At Weekends

This study⁵ was designed to determine whether having more specialists in hospitals at weekends will improve outcomes for patients admitted as medical emergencies. The approach was based around asking consultants and associate specialists to complete a short questionnaire designed to help researchers capture nation-wide trends in weekend-weekday specialist intensity and admission mortality.

The Trust viewed participation as being strategically important because of the opportunity to contribute to a study seeking to provide a UK-wide evaluation of the impact of the transition to seven-day working. In addition, the study sought the views of a large number of staff and provided an opportunity to promote awareness of research to many people through their direct participation.

A research team was brought together and this was led by the Associate Director of Research with support from the Medical Director, a senior research nurse and numerous other staff.

The survey was carried out over a 4 week period and the Trust had a 95% response rate with a total of 337 staff completing the survey. This was the highest proportion of response from any of the 107 Trusts taking part and provided the second highest number of responses.

Dr Cassie Aldridge, HiSLAC Project Manager said: *“HiSLAC is an independent, professionally-led study which will evaluate a key component of NHS England's policy drive for 7-day services so it is vital that we are able to gather as much data as possible to form an accurate snapshot of how specialist intensity is changing over time. We're delighted that East and North Hertfordshire really got behind the survey, we'd like to thank everyone there – and the other NHS Trusts across England – for their support.”*

The high response rate for 2017 was brought about due to a number of practical measures:

- The 2017 survey was eligible to be supported by staff funded via the National Institute for Health Research. This meant that a high level of internal resource could be allocated.
- A letter of organisation support for the project, which placed an expectation for all relevant staff to complete the survey, was issued by the Medical Director to relevant staff.
- The project was led by the Associate Director Research and Development with support from a highly experienced and enthusiastic Senior Research Nurse.
- A specific communication strategy was devised for this project. This included initiatives to raise awareness, generate enthusiasm and maintain momentum over the four weeks.
- Presentations at Audit Days to raise awareness and to address any queries.
- The stratification of staff into groups to permit personalised communication.
- A high level of personal connection for the first two weeks involving face to face contact. Our research nurses physical handed the form to clinical staff and asked them to complete this. This created an emotional commitment to complete the survey and an opportunity to ask questions.
- Survey responses were tracked, acknowledgements were made and additional effort was made to have personal contact with individual staff who only attended the site at a low frequency.

- At the end of the survey period a thank you was issued to all staff who participated in the survey and also to all those involved with running it.

Conclusions

1. As a Trust we have identified that it is strategically important to be able to involve staff in the participation of research. This improves research culture with benefits for patients.

2. The involvement of staff as research participants is challenging in an environment where there is a very high demand on the time of staff to provide patient care and service considerations could not be compromised.

3. The Trust has established an effective leadership team to ensure that research is an operational consideration.

4. The Trust has a clinical and non-clinical research support team which can identify and provide effective and practical ways to ensure that staff can act as research participants with little impact on their ability to provide patient care. This has the effect that staff are only asked to do what is reasonable and that unrealistic expectations are avoided.

5. Involving many staff in research across the organisation not only increases research awareness but it also uncovers previously unknown individuals who are enthusiastic about research; these act as '**research champions**' and extend research leadership. Overall this acts to embed research into everyday activity which supports the vision of providing "*research opportunity for all patients and all staff*".

6. New research studies are now easier to start at the Trust because there is a greater organisational appetite by all staff to support research. This is accompanied by a greater acceptance that research is a normal part of service and that it should be considered in the planning of everyday activities.

References

1. East and North Hertfordshire NHS Trust Research Strategy, accessed via http://www.enherts-tr.nhs.uk/files/2016/07/Research-Strategy-2016_Single-Pages-A4-4th-July-2016.pdf 26th Oct 2017.
 2. *Smith, P., McCue, J., Hall, M., Gorog, D. and Farrington, K.*, The First Year Implementation Of A Research Strategy For East And North Hertfordshire NHS Trust. *HJM* 2017 14(1) 9-14.
 3. iHype intraoperative hypertension in elder patients in UK Hospitals accessed via <http://www.i-hype.org/> 26th Oct 2017.
 4. The 2nd Sprint National Anaesthesia Project (SNAP-2): Epidemiology of Critical Care provision after Surgery, accessed via <https://www.niaa-hsrc.org.uk/SNAP-2-EpiCCS> 26th Oct 2017.
 5. The Prospective Evaluation of High Intensity Specialist Led Acute Care (HiSLAC) on Emergency Medical Admissions to NHS Hospitals at Week ends, accessed via <https://www.hislac.org/> 26th Oct 2017.
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References

1. General Medical Council. The State of Medical Education and Practice in the UK. Published October 2016.
2. Royal College of Physicians. Being a Junior Doctor: Experiences from the front line in the NHS. December 2016.
3. Enhancing junior doctors' working lives: a progress report. Health Education England 2017.
4. Junior doctor morale; Understanding best practice working environments. Health Education England 2017.
5. Eight high impact actions to improve the working environment for junior doctors. NHS Improvement. October 2017.