Resources for Trainees Wanting to Carry Out Research

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These resources have been written by the trainee and junior representatives of the APM Science Committee. The resources are mainly designed to be used by palliative medicine specialty trainees, though they may also be helpful for other groups such as core medical or GP trainees.

The resources commence with consideration of the palliative medicine specialty curriculum and a list of resources. They then outline how a trainee wanting to carry out a research project might approach this.

Research Curriculum

The latest curriculum for specialty palliative medicine training in the UK (2010 curriculum with 2014 amendments) can be found here:
http://www.jrcptb.org.uk/sites/default/files/2010%20Palliative%20medicine%20%28amendments%202014%29.pdf

Section 11 of the curriculum (pages 63-65 of the document) is specifically denoted as the research component. It is made up of two sections, 11.1 – Evidence and guidelines, and 11.2 – Ethical research. These sections are composed of a number of knowledge, skill and behaviour competencies that should be fulfilled to obtain competence in this area of the curriculum.

An ideal way to fulfil the competencies is to carry out a research project. By doing this you will be able to demonstrate your aptitude for critical appraisal, your knowledge of research process and governance, and your ability to work as part of a research team. However, completion of a research project isn't for every trainee. Other options to fulfil competencies include completing an audit with a good literature review, attending journal clubs, recruiting patients for clinical trials and completing a Good Clinical Practice course.

Note that the research component of the palliative medicine curriculum is likely to change in the future.

General resources

A beginner's guide to successful palliative care research:
http://www.palliativecarescotland.org.uk/content/publications/1340288254_A-Beginners-Guide-to-Successful-Palliative-Care-Research-.pdf

How to conduct research in an independent hospice: practical tips and advice:

http://apmonline.org/wp-content/uploads/2015/04/EJPC_21_5_Final-Paper.pdf

Royal College of Physicians research engagement toolkit:

https://www.rcplondon.ac.uk/guidelines-policy/research-engagement-toolkit

Research governance: A guide for hospices:

http://palliativecare.walescancerresearchcentre.com/research/

General Medical Council research guidance:

http://www.gmc-uk.org/static/documents/content/Good_practice_in_research_and_consent_to_research.pdf

Starting out

There are many positives to palliative medicine trainees carrying out a research project. The specialty as a whole wishes to expand its evidence base, and research carried out to a good standard will help to do this. Research can be rewarding, as well as producing material to include on a CV alongside meeting palliative medicine curriculum competencies. Personal interest in the project is important to ensure an appetite for project completion is maintained.

There are a number of routes a trainee can take into a research project. For those looking to forge a career in palliative medicine research, a combined clinical and academic training programme is worth considering. Routes are different throughout the four nations. In England, this could be done through an NIHR academic clinical fellowship (http://www.nihr.ac.uk/funding/academic-clinical-fellowships.htm). For Scotland, a route can be taken through the Scottish Clinical Research Excellence Development Scheme (SCREDS): http://www.scotmt.scot.nhs.uk/specialty/scottish-academic-training-(screds).aspx. For Wales, this is through the Wales Deanery: https://www.walesdeanery.org/specialties/academic-medicine. For Northern Ireland, this is through the Medical and Dental Training Agency: http://www.nimdta.gov.uk/specialty-training/information-for-specialty-trainees/spec-academic/.

Other stand-alone clinical fellow posts in palliative medicine may also be available to those wishing to take time out of training to carry out research. Within training, one option is carrying out a Master's degree with a research component. This may be an MSc in palliative medicine, though other areas could be studied such as education or ethics. Such research programmes offer structure such as a named academic supervisor and direct route to a university ethics committee. Bear in mind that entering a Master's programme requires funding. A final option is carrying out a self-organised research project within training – these resources will focus mainly on this process.

It is worth considering these options personally, but also discussing with your educational supervisor, to allow you to put plans in place early in your training.

Commencing the research process

When starting a research project, consideration needs to be given to the following elements:

- Research training
- Research idea
- Academic supervisor
- Research proposal
- Ethical approval/ Integrated Research Application System (IRAS) form
- Sponsorship
- Time
- Funding and resources

We have not focussed on information on research involving drugs which require approval from the Medicines and Healthcare products Regulatory Agency (MHRA). Such studies are challenging to plan and conduct and may not be possible as a trainee.

Research Training

It is important to be competent to carry out a research project. A good starting point is the Good Clinical Practice course, which gives both practical and ethical guidance on carrying out research. This course can be carried out face-to-face, or by e-learning. More information is available here: https://www.crn.nihr.ac.uk/learning-development/good-clinical-practice/

Additionally, the APM research methodology workshop provides some grounding in carrying out a research project in palliative care: http://apmonline.org/events/

Research Idea

A trainee themselves may have their own idea about a research project they wish to carry out. Alternatively, a trainee could approach a senior researcher who may already have research ideas in mind.

In either situation, it is useful to ensure that the idea is novel, as there is little reason to carry out a research project that has already been completed to a high standard. This can be explored through a brief literature review. It may be helpful to approach your local NHS Trust library as they could help with literature searching.

Bear in mind the challenges you might face during the research. Be realistic in what you can do, aim to study a population you will have access to, and keep your project simple to allow achievable goals.

Courses can also give guidance on developing research ideas. For palliative medicine trainees, the APM research methodology workshop is a good opportunity to discuss ideas: http://apmonline.org/events/

Academic Supervisor

Those carrying out a research specific post (such as an academic clinical fellowship) or a Master's degree will automatically have an academic supervisor allocated. However, support is often also available for those carrying out a stand-alone project. A survey carried out by the APM Science Committee has found that most Local Education and Training Boards (LETBs) have a nominated research representative on their regional palliative medicine Specialist Training Committee (STC). The training programme director for each region will be aware of the research representative and should be able to direct trainees towards them. The research representative themselves may act as an academic supervisor, or may be able to signpost the trainee to another researcher who could help. It may be that your educational supervisor can provide some of the academic support.

Putting plans in place

Research Proposal

After you have an idea and a potential supervisor identified, it is time to plan the research process out more thoroughly. This can be done through writing a research proposal. This document should consider the following elements:

- Project title
- Project aims and objectives
- Literature review
- Research strategy and methods
- Research participants
- Data analysis
- Ethical issues
- Sponsorship
- Trial registration
- Timescale
- Funding
- Dissemination plan

Writing such a document can seem daunting at first, however, help is at hand. An academic supervisor should be able to provide initial advice. The NIHR research design service (http://www.rds.nihr.ac.uk/) can provide support in writing a proposal. Additionally, hospitals, hospices and universities may have their own guidelines on production of a proposal; contact the research and development team there to see what help they can offer. It may also, depending on

your project, be wise to consider involvement of statistical support at the beginning of study design to ensure that the methods and analysis are robust.

Ethical Approval/IRAS Form

NHS ethical approval is centralised through an online system using the Integrated Research Application System (IRAS): https://www.myresearchproject.org.uk/.

This site provides information on whether your project actually requires ethical approval, and to what level. For example, audits do not need ethical approval. Some research projects may not require NHS ethical approval, but may still require local approval via a research and development department, and potentially completion of an IRAS form (for example, research with NHS staff members).

The website provides guidance on how to complete an IRAS form and information from your research proposal will be essential when completing the questions.

The website provides contact details for local research ethics committees, who may be able to answer queries to do with the application. Your academic supervisor should also be able to provide support.

Sponsorship

Alongside ethical approval, research governance of the project needs to be robust. This is usually the responsibility of the study sponsor. The sponsoring organisation will want to ensure that satisfactory governance processes have been put in place. When this is achieved, the sponsor will often provide research indemnity (it is worth checking on this).

As a palliative medicine trainee, the sponsoring organisation would most likely be an employing NHS trust or a university. It is worth approaching your local trust's research and development department in the first instance.

Trial Registration

The revised Declaration of Helsinki (2013) advised that all research studies involving human participants must be registered in a publically accessible database (http://www.wma.net/en/30publications/10policies/b3/). It is worth liaising with the study sponsor about this as according to the Research Governance Framework (England), they take responsibility for registration.

Options for this include:

- The World Health Organisation International Clinical Trials Registry Platform (ICTRP) (http://www.who.int/ictrp/network/trds/en/)

- The International Standard Randomised Controlled Trial Number (ISRCTN) (http://www.isrctn.com/)
- ClinicalTrials.gov (https://clinicaltrials.gov/)

Further information is available from the NIHR Clinical Trials Toolkit (http://www.ct-toolkit.ac.uk/routemap/unique-trial-number) and from AllTrials (http://www.alltrials.net/)

Time

It is important to plan any research project from an early stage, to ensure approvals can be requested and timescales mapped out. Remember that achieving ethical approval can take many months, so this needs to be factored in to your plans. Other potentially time-consuming tasks include participant recruitment, data analysis (particularly transcription of qualitative date from interviews/focus groups) and the project write-up.

Factor into the plans your time availability in carrying out the project. Palliative medicine trainees throughout the UK have time allotted for research differently between regions; some have a specific block of months, whilst others have a defined period for self-study each week. Consider your options and liaise with your educational and clinical supervisors to ensure that your plans are robust, as balancing clinical and academic commitments can be challenging.

Funding and Resources

Research carried out in an academic clinical fellowship or other similar scheme will be funded. A Master's degree that is carried out within training will have course costs that usually need to be self-funded.

Stand-alone research projects will incur their own costs. These may include:

- Travel
- Stationery
- Permission to use pre-designed questionnaires
- Transcription of qualitative data
- Secretarial support

Funding may be available, and your local research and development department or academic supervisor may be able to direct you to possible sources. These could include:

- Charitable funding (research or specialty-specific charities)
- Government funding
- Research councils
- Local research and development departments or universities
- Royal colleges and medical societies.

Also consider other resources that you may require through the project. These could include:

- Access to research journals; the APM provides access to palliative medicine journals. Your local hospital library and the Royal College of Physicians are also good sources of journal access
- Office space to work in
- Computer
- Printer
- Dictaphone
- Filing cabinet

Dissemination Plan

It can be helpful to agree authorship (including the order of authors) of any proposed journal articles at the outset.

Project management

Data

The Data Protection Act 1998 must be adhered to when storing information. This involves using a locked filing cabinet when storing paper-based data. Also be aware that electronic data protection measures need to be robust. This may include password protected systems, secure server storage and anonymisation measures. This can add significant time and necessitate IT support.

Supervision

Be sure to keep in touch with your academic supervisor, even if the project is going well. This will ensure that you are heading in the right direction, and will allow potential problems to be foreseen early.

Write-Up

Commencing the study report early on will allow you to put get some words down whilst the project is fresh in your mind. It is also important to know what you are intending with the report. If completing the research as a Master's project, you will need to write a dissertation. If you have been funded, the funder may request a research report. The project sponsor and approving ethics committee may also require a report. Beyond this, you'll need to think about publication of the research. This may be as a journal article, but could also be as a presentation (platform or poster) at

a conference. When identifying your output source, check the journal's instructions for authors to allow you to lay out your paper appropriately.

After submission of a journal article, remember that it may take some time for it to be reviewed, and changes may need to be made. Persistence is needed throughout a research project but particularly to complete the publication process.