

RESEARCH PROJECT INSTRUCTIONS

REQUIREMENTS

From 2016 a research project, covering a case history, clinical guidelines or original research, is a compulsory component of the RNZCUC training programme. This is to be completed after passing the University of Auckland's Evidence for Best Practice paper (POPLHLTH 709) or RNZCUC-approved equivalent paper.

The research project replaces the four extended assignments, required prior to 2016, except in the case of trainees who have submitted an extended assignment prior to May 1 2016. Those trainees should complete the four extended assignments.

RNZCUC does not issue exemptions for the research project.

PURPOSE

Advanced trainees should be able to read and absorb medical literature, to research a subject of some relevance to their clinical practice, and to write an acceptable scientific article. This could be a review article, development of guidelines, or original research.

A high standard is expected and it is anticipated that the best projects will be submitted for publication.

An outline or draft of the proposed research project must be submitted to RNZCUC at the stage prior to starting intensive work on the project so that relevance can be ascertained, research direction agreed on, and later need to start again avoided.

Retrospective approval for work done in the past will not be given and any failures will result in the need to repeat with a fully new project.

Copies of submitted work should be kept by the trainee in case of dispute or papers going missing.

DELIVERY

The final project should be emailed to assignments@rnzcuc.org.nz. In addition we should receive either an outline, or for the case history only, a draft. Acceptable formats are Word (.doc or .docx) and pdf.

STYLE

All parts of the Project should be written in the flowing style of current medical articles. Cases should be in the 3rd person, abbreviations used should be explained at first use – e.g. in the first instance "CRP (C-Reactive Protein)" and thereafter just "CRP".

Longer tracts should be thoughtfully arranged in paragraphs and headings may be used (sparingly). Bullet points should also be used sparingly.

INSTRUCTIONS

This is an opportunity to present researched discussion on either a case history OR clinical guideline OR original research.

OPTION A - CASE HISTORY

The project may be on an issue of acute management you have had cause to reflect on. This should be based on a case or cases you have been involved in, and focus on aspects of acute care within an RNZCUC-approved training facility.

Important issues that arise from this that are relevant to other disciplines may be discussed but should not form the main thrust of the project or discussion.

Word Count Introduction:	MAXIMUM 100
Word Count Case Description:	MAXIMUM 300
Word Count Case Discussion:	MINIMUM 2700
	MAXIMUM 3000

INTRODUCTION

This should summarise the issues within the case and introduce your topic – for example, background information (incidence/history/epidemiology/anatomy/pathology etc. as appropriate) and how it is relevant to your practice and why you chose it.

CASE DESCRIPTION

This should be presented in clinical notes form and be documented to a high standard – standard terminology should be used, and common abbreviations are accepted.

Ensure that a diagnosis, working diagnosis / clinical impression, or differential diagnosis is recorded, and it must include a summary of the case outcome. It should also give the reader an idea of context – please include a description of the patient seen (NO identifying features should be included), the type of facility they presented to, and the day /time seen.

LITERATURE RESEARCH/DISCUSSION

This should be a well-researched, referenced and in-depth discussion of your chosen topic which will be an aspect of the clinical case. Your discussion should be based around a real clinical issue you have encountered, and not a superficial review of a large subject e.g. the diagnostic utility of CRP for appendicitis, rather than a broad general discussion of appendicitis. You will find the narrower your focus is, the more meaningful your conclusions will be in terms of influencing your clinical practice. It will help to define the scope of your discussion early on – what question/s are you trying to answer?

The body of your discussion should summarise the literature around your topic – for example current opinion, controversies, relevant studies, variation in local practice, trial results. It should also demonstrate your own critical appraisal of the literature – for example, are there biases in the study design, how big is the sample size, do the authors have conflicts of interest, do you agree with their conclusions? Lists or bullet points with information easily gleaned from a textbook are NOT what is required.

Then summarise your findings, and give YOUR conclusion, including a statement of how this may influence your practice. Ensure you relate this back to your case.

REFERENCES/BIBLIOGRAPHY

You must reference a minimum of 10 *peer reviewed* journal articles – i.e. websites should be used as references only where they contain vital information not available elsewhere. The original sources of such information should be exhaustively sought and examined.

OPTION B - CLINICAL GUIDELINES

The 'Clinical Guidelines' option comprises the development or review of a pre-existing clinical guideline appropriate to an urgent care facility. This should be based on evidence from the literature and fill a need that is either unmet or, in the case of a review, revise an earlier guideline that has become obsolete due to changes in practice.

It may be useful to consult with your colleagues and or clinical leader as to problems for which guidelines / protocols would be useful. Such guidelines should apply to urgent care doctors, but could also peripherally include reception, administration, nursing, radiology and other team members. They should predominantly relate to medical care.

Word Count Introduction:	MAXIMUM 100
Word Count Discussion	MAXIMUM 2500-3000
Word Count Guideline	MAXIMUM 200

INTRODUCTION

What is the clinical problem that the guideline addresses? Are there other related guidelines within your facility? Do other institutions have guidelines for this problem that may be relevant? What is the nature of your clinical environment and what important constraints do you work under that have to be taken into account?

DISCUSSION

You should research all the salient points of the criteria for inclusion, diagnosis and management that will be included in the guideline and justify each point from the literature.

GUIDELINE

The guideline itself may be expressed as a flow diagram, bullet points or other means but this should be as short, simple and logical as possible and not leave loose ends. If there are areas of uncertainty they should be noted. The inclusion criteria should be clear cut and any decision points differentiated from recommendations.

Guidelines should be completely appropriate to your facility and not depend on a resource that is not present unless that in researching the guideline you can make a convincing case for making that resource (e.g. point of care test, drug or device) available at your institution.

REFERENCES/BIBLIOGRAPHY

You must reference a minimum of 10 *peer reviewed* journal articles – i.e. websites should be used as references only where they contain vital information not available elsewhere. The original sources of such information should be exhaustively sought and examined.

OPTION C - ORIGINAL RESEARCH

This option involves doing original research on a clinical problem. If this is contemplated you should commence planning this early as this option is potentially the most time consuming and resource hungry. The most realistic approach given the limitations of time may be for a pilot study rather than attempting definitive research. It should be noted that research involving human subjects may require ethical committee approval (see <http://neac.health.govt.nz/streamlined-ethical-guidelines-health-and-disability-research> for information).

You should also discuss your plan early with the College Examiner, Director of Training or a member of the Education Committee. RNZCUC is keen to promote research in urgent care and may be able to provide useful contacts. In addition you should seek permission from the clinical leader of your clinic / department.

Word Count Introduction:	MAXIMUM 100
Word Count Research	MAXIMUM 200
Word Count Discussion	MAXIMUM 2500-3000

INTRODUCTION

Why do you think this problem needs researching? What is already known? Is there parallel research in other disciplines or countries that provides some clues as to how you should look into this?

RESEARCH

There are many approaches to research in health. Studies may be prospective, retrospective and may involve direct patient contact, questionnaires, review of notes or epidemiological data. They may be qualitative or quantitative, unblinded, blinded or double blinded. They may or may not require statistical analysis which could involve further time. Again it is important that you discuss study design with an appropriate member of the College (Director of Training / Education Committee / Examiner) prior to commencing.

The outcome sought is not necessarily an advance in medicine but evidence that you have thought through your research subject and made a considered and coherent plan and execution of such.

DISCUSSION

Your discussion should examine the results of your research and compare or contrast it with any other research of similar nature. As noted above a statistical analysis may be required. A negative or non- definitive result is quite acceptable – most medical research does not definitively provide an answer to question(s) asked – often it just results in new questions, an observation that a different study design was required or that larger numbers were required to reach a definitive answer. It is expected that you should critically examine any such issues that arise in your research, and that even if no definitive answer is found you should have some suggestions for a way forward in the field you have looked at.

REFERENCES/BIBLIOGRAPHY

You must reference a minimum of 10 *peer reviewed* journal articles – i.e. websites should be used as references only where they contain vital information not available elsewhere. The original sources of such information should be exhaustively sought and examined.

TITLE PAGE

Each assignment should be typed, and accompanied by a title page with the following information:

TITLE OF RESEARCH PROJECT	
NAME DATE	
Word count-introduction	Maximum 100 words
Word count-case history or original research	Maximum 300 words.
Word count-discussion:	2500-3000 words

REFERENCING AND PLAGIARISM

These assignments should be your own work, although the Original Research Project may involve other people in the collection of data, statistical analysis etc. It is of course acceptable to have another person proof read your project and use of electronic spell / grammar checking software is encouraged.

Where you include information from another source, this should be duly recognised using standard medical referencing format. Presenting someone else's material without acknowledging them (ie referencing) is considered plagiarism, and will not be tolerated.

Plagiarism includes (but is not limited to):

Direct copying, or "cutting and pasting".

Not using quotation marks or paraphrasing when including someone else's work.

The use of other people's tables is strongly discouraged, but if such use is essential, they should be attributed and copyright should be sought.

Laying out other author's data in your own table is acceptable provided the data is clearly attributed.

Illustrations must be original, public domain or copyright obtained, imaging must be anonymised and for clinical photographs a release obtained.

The assignments will be submitted to 'Turnitin'. Where plagiarism is detected, the assignment will fail and further penalties will be applied according to the RNZCUC Academic Honesty policy. The College, Medical Council and employers alike entrust doctors and expect honesty, and all take any failure of honesty seriously.

For more information and examples of referencing:

http://www.nlm.nih.gov/bsd/uniform_requirements.html - the US National Library of Medicine guide

<http://www.library.auckland.ac.nz/subject-guides/med/setref-vancouver.html>

<http://www.cite.auckland.ac.nz/index.php?p=overview>

LITERATURE SEARCH AND ARTICLE APPRAISAL

For more information about searching for articles in a medical database (e.g. pubmed), read the following:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2127107/pdf/9251552.pdf>

For more information about appraising articles here are a couple of articles to get you started:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2127173/pdf/9253275.pdf>

<http://www.sma.org.sg/smj/4603/4603ebm1.pdf>

MARKING
MARKING SCHEDULE – CASE HISTORY

Introduction: - Description of issues and introduction of topic.	/1 Mark
Case Description: Accuracy: - Precision and completeness of case description. - Reflects current standard practice. Complexity of case and relevance to Urgent Care.	/2 Marks /1 Mark
Structure: - Concise (word count). - Presentation and layout (easy to follow). - Syntax / grammar/ Spelling. - Unambiguous.	/1 Mark
Discussion: - Critical thinking, appraisal and analysis. - Comprehensiveness, coherence, and logic of discussion / conclusions.	/6 Marks
Self-reflection / learning: - Thoughtful analysis. - What did you learn? - How it can be applied to your practice?	/3 Marks
Referencing: - Quality of references. - Correctly cited.	/1 Marks
TOTAL	/15 Marks

Marks will be credited for:

- Use of relevant material in each case, with important positive and negative findings included.
- Descriptions of appropriate management of a case, or identifying mistakes in management.
- Accurate terminology.
- Use of relevant and up to date references.
- Willingness to reflect on, and learn from mistakes.
- Higher marks will be awarded where case histories demonstrate that the trainee has considered/researched best practice medicine, and compared this to what actually happened during the course of the consultation.

Marks will be deducted for:

- Inappropriate issues or cases.
- Incomplete clinical notes (case description).
- Unsafe practice, where this is not acknowledged.
- Poor referencing.
- Excessive length.
- Late assignments.
- Directly copying reference material / textbooks in the discussion. Remember to discuss “Best Practice” and compare to your individual case. i.e. what was done well and what wasn’t and what was learnt.

MARKING SCHEDULE - GUIDELINE

Introduction: - Description of issues and introduction of topic.	/1 Mark
Structure: - Concise (word count). - Syntax / grammar/ Spelling.	/1 Mark
Discussion: - Critical thinking, appraisal and analysis. - Comprehensiveness, coherence, and logic of discussion / conclusions.	/5 Marks
Guideline: Accuracy: - Presentation and layout (easy to follow). - Guidelines fully supported by references - Relevance/ Utility for Urgent Care	/2 Marks /2 Marks /1 Mark
Referencing: - Quality, comprehensiveness of references - Correctly cited.	/2 Marks /1 Marks
TOTAL	/15 Marks

Marks will be credited for:

- Accurate terminology.
- Use of a variety of relevant and up to date references.
- Good summary of current literature with evidence of critical appraisal.
- Guidelines that are easy to apply and follow
- Higher marks will be awarded where guidelines have a wide general application

Marks will be deducted for:

- Inappropriate issues
- Poor referencing.

MARKING SCHEDULE ORIGINAL RESEARCH

Introduction: - Description of issues and introduction of topic.	/1 Mark
Research Hypothesis/ Design: Accuracy: - Hypothesis relevant to Urgent Care - Research design coherent	/2 Marks /1 Mark
Structure: - Concise (word count). - Presentation and layout (easy to follow). - Syntax / grammar/ Spelling. - Unambiguous.	/1 Mark
Research : - Appropriate treatment of results - Comprehensiveness, coherence, and logic of discussion of results.	/5 Marks
Conclusions: - Thoughtful analysis. - What are the final conclusions? - How does this move knowledge forwards?	/3 Marks
Referencing: - Quality and completeness of references. - Correctly cited.	/2 Marks /1 Marks
TOTAL	/15 Marks

Marks will be credited for:

- Examination of a current problem in Urgent Care
- A research plan that tackles the problem in a logical manner
- Discussion of a full range of current relevant literature
- Use of a variety of relevant and up to date references.

Marks will be deducted for:

- Poor referencing.
- Excessive length.
- Late assignments.