Canadian Child Health Clinician Scientist Program
CCHCSP PCCCSE
Programme canadien de cliniciens-chercheurs en santé de l'enfant

CCHCSP CASE STUDIES

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CCHCSP CASE STUDIES

CASE A: Good Management

PREPARATORY READING

CCHCSP Handbook Chapter 12: Person to person management

CASE DETAILS:

Learning Objectives:

- To develop skills at proper hiring of new employees.
- To recognize human resource and interactive issues.

Case Scenario:

You, as a new Principal Investigator (PI), have been given Start-up Funds by your Department or Research Institute to establish your research program. The funds are not all that you had hoped for. You honestly feel that you will be a little short on computer software and other supplies, but you did get two years of funding for a rather experienced research assistant.

You consider that you might be able to get all the software and supplies you want if you hired a more junior assistant or just take on a student, and use the money you save for the other lab expenses.

Question 1:

- What can you reasonably expect by way of relative performance of i) an assistant with less than 2 years experience; ii) a more senior assistant with experience; iii)a student?
- How will you convey and monitor adherence to these expectations?
- Strategically, what are the pros and cons of getting someone from each level of training at this initial stage of your career?

You decide to interview for an experienced (senior) research assistant.

Question 2:

- How do you go about doing it?
- How do you identify applicants?
- How many can you expect to respond?
- What questions should you ask, i) of the applicants? ii)of the referees? What can you NOT ask?
- In the interview, one applicant says she can produce references, but balks when you ask for permission to speak to her immediate previous supervisor, saying “we didn’t get along”.

Question 3:

- How would you approach this situation?

After several interviews of potential candidates, you decide to hire a senior research assistant, who works out well, and is productive. After two years you succeed at getting extra-mural funding for a

particular research project, and are now in a position to get another assistant, a student or both. You decide to hire a junior research assistant and to supervise a student for this project.

Question 4

- How have your strategic considerations changed?
- How do you approach your search for a research student (health professional student vs graduate student)?
- What avenues are available for funding of research students?

You now have a full research team with your current senior research assistant, a junior research assistant and a graduate student (who was awarded an external research stipend!) Things start off well but after a few weeks, you notice that there may be some tension among your assistants and the student.

Question 5:

- How do you approach this situation?
- Are the roles and responsibilities of each research team member clear?
- Do the research assistants have clear supervisory roles towards the student?

Case developer: Dr. Neil Sweezey, University of Toronto

Case Reviewer: Dr. Robert Bortolussi, Dalhousie University

Revised January 2015.

COACHES CORNER

Learning Objectives:

- To develop skills at proper hiring of new employees.
- To recognize human resource and interactive issues

Questions:

1. What can you reasonably expect by way of relative performance from an assistant at a senior, an assistant at a junior level, and a student?
2. How do you go about hiring an assistant?
3. How do you handle conflict among your employees?

Experts to invite:

Invite one or two people with extensive human resource experience, for instance the director of Human Resources at your institution, and/or a senior researcher with experience on issues like these and strategies to deal with them.

Case Overview:

You are a new clinician scientist who has been successful at gaining initial support to launch your career. You have been awarded "start up " funds to purchase equipment, software, supplies and assistants to do your research. But you want to get the best value with the funds allocated. You face dilemmas on whether to hire an experienced assistant who is more expensive or a junior one. Later you encounter interactive issues between your assistants and a student.

Comment:

The case is designed as a "generic" one. The assistant may be a lab technician, a data manager or a health professional hired to interact with patients. Depending on the audience with you, you may want to tailor the situation.

There are often no simple answers to fit all situations. It is worth discussing the merits of hiring an experienced assistant (expensive, perhaps fixed in their way of doing things) or a junior assistant (willing to grow with you, ambitious.)

Later issues arise on person to person interaction. Again, there is no single answer to this and there is room for good discussion. It is important to emphasize the value of HR involvement at hte time of hiring and especially when conflict arises. These are not aspects that one should handle alone, and everyone will gain from experience of others.

CCHCSP CASE STUDIES

CASE B: Conflict of Interest

PREPARATORY READING

CCHCSP Handbook Chapter 2

CASE DETAILS:

You are a clinician-scientist working in gastroenterology. You started in this position 5 years ago and have managed to become involved as an active member on a national advisory committee for the development of guidelines for the management of inflammatory bowel disease (IBD). This committee recommends what medications should be used, in what order and what diagnostic tests should be done for investigation. These guidelines will impact what medication will be publicly funded.

You were very happy to join this advisory body, despite the volunteer work it entails, because your research interests lie in the area of IBD. You are the Chair of the Biologics working group; you also participate in other working groups.

Given your expertise and research interests and given the paucity of public funding, you have turned to the industry to obtain research funding (investigator-driven initiative) and this has allowed you to publish and maintain your research career. Industry producing biologics have been very helpful and have allowed you to be the principal investigator on randomized controlled trials involving their medication. You are involved in both investigator-driven and industry-driven studies. You still have research funds from the industry.

Questions:

1. What is a conflict of interest: real vs perceived? When do you think that a conflict of interest exists?
2. Is this particular situation viewed as a possible conflict of interest?
3. How should one deal with possible conflict of interest?
4. Are there any fatal flaws that could make you fail?

Given your expertise and reputation, an industry that has recently received an approval from Health Canada for a new biologic product invites you to a consultation meeting. The invitation states that the objectives of the meeting are to learn about the most recent data on IBD and biologic use in order to advise the industry about the use of these data for future product use. People participating in this meeting (your colleagues) will receive a payment to compensate for time lost from work (i.e., not seeing patients). Travel expenses will also be reimbursed. You are invited to give a presentation on your research findings.

Question:

5. Should you accept this invitation? If not, why? If so, any particular conditions that would need to be addressed?

The industry asks you to participate in continuing professional development for community physicians. You are asked to give a talk (they pay very well!) about IBD and use of biologics, efficacy, side effects, etc. The presentation is not different than the statement that was written by advisory bodies; the goal is just to inform physicians about new indications and new drugs. The industry has hired a firm specialized in continuing professional development who says they can help with your slides and can offer a few background slides.

Questions:

6. Please decide if you are going to do this or not? Under what circumstances?
7. If you refuse, how do you navigate this?
8. Give examples of possible conflict of interests and how to deal with them in basic science? In an allied health domain?

Case Developer: Dr. Caroline Quach, McGill University

COACHES CORNER

Experts to invite:

A clinician-scientist who is involved as a principal investigator for investigator-driven studies, an investigator involved in industry-driven studies, a representative from industry (for eg. Pharmaceutical industry).

According to the Conflict of Interest Act (S.C. 2006, c. 9, s. 2) published by the Minister of Justice, a public office holder is in a conflict of interest when he or she exercises an official power, duty or function that provides an opportunity to further his or her private interests or those of his/her relatives or friends or to improperly further another person's private interests.

Please refer to attached document (inserted as text) for the entire Act.

The following is an extraction from a Conflict of Interest document, specifically developed by and for the National Advisory Committee on Immunization (NACI). The information in this document could be generalizable to other specialties.

1. INTRODUCTION

In addition to the Health Canada/Public Health Agency of Canada (PHAC) policy on conflict of interest, this document provides guidance on the management and declaration of conflict of interest for members of the National Advisory Committee on Immunization (NACI).

The processes described here recognize the difficulty in locating nationally recognized experts who are completely free of real, potential (capacity to develop into something in the future), or perceived conflict of interest, since nearly all experts have affiliations with regulated industries, the scientific community, or special interest groups which may receive funding from industry. The PHAC seeks to achieve a reasonable balance between these sometimes divergent considerations, gaining from the expertise of external advisors while avoiding conflict of interest.

2. CONFLICT OF INTEREST

The Committee is best served by members with differing areas of expertise and perspectives related to vaccines and immunization programs, who can participate in consensus development with open and fair minds. Strength of convictions, willingness to debate, and ensuring rigour in scientific analysis, are desirable components of consensus seeking, along with the key requirements of objectivity and openness to reason. Any situation that might interfere with a member's ability to meet these standards during deliberations shall be considered a real, potential or apparent conflict of interest and should be disclosed immediately to the Secretariat of NACI.

3. CONFLICT OF INTEREST GUIDELINES FOR NACI MEMBERS

Each committee member is responsible for taking such action as is necessary to prevent real, potential or apparent conflicts of interest, and to immediately inform the Secretariat of circumstances that take place or may place the member in a position of conflict of interest, as set out in these Guidelines. A conflict of interest exists for any of the following situations applicable to the member, their spouse or children:

1. Direct employment or beneficiary in a vaccine manufacturer or drug manufacturing company.
2. Ownership of stock in any vaccine or drug manufacturer company. Note that diversified mutual funds are not subject to these restrictions.
3. Ownership of, or otherwise entitled to royalties or other compensation, for a patent on a vaccine product or process, immunologic agent, adjunct or preservative that can be used for a vaccine that may come before NACI.
4. On-going service in any advisory or consulting roles, whether paid or unpaid, to a vaccine manufacturer; this excludes participation in clinical trials, public health research, or service on data monitoring boards.
5. Except as indicated under 4, solicitation or acceptance of funds from vaccine manufacturers on behalf of themselves or others (i.e. to "lead" educational activities of their department or an organization of which they are a member, officer or employee).
6. Service as a paid litigation consultant or expert witness in litigation involving a vaccine manufacturer.
7. Acceptance of honoraria or travel reimbursement with a funding source from a vaccine manufacturer for attendance at scientific meetings unless it conforms to the CMA Guidelines for an Ethical Association between Physicians and the Pharmaceutical Industry, section on sponsored meetings.

4. PROCESS FOR SOLICITING CONFLICT OF INTEREST INFORMATION

Members and liaison members will be asked to complete an annual declaration of Conflict of Interest at the first meeting of each calendar year. The declaration form will be used to solicit relevant information from members of NACI. The failure of a member to complete and return the questionnaire may limit or disqualify his/her participation in upcoming NACI meetings until a review has been completed.

Prior to NACI meetings, the Secretariat will distribute a draft agenda indicating topics for discussion and requesting that members and liaison members advise the Secretariat of any real, apparent or perceived conflicts of interest in relation to the agenda items that have not been previously declared.

All information disclosed by NACI members to PHAC is confidential and will be handled as such.

5. POSSIBLE MEASURES TO MANAGE SITUATIONS OF CONFLICT OF INTEREST

Depending on the situation, a number of measures to manage conflict of interest may be considered. Sometimes the mere fact that a problem has been disclosed and discussed at the outset will suffice to diffuse public concerns.

Options for Managing Potential Conflicts:

1. Once conflict of interest is disclosed to HC, no restriction on participation;
2. Executive Secretary informs members of the individual's potential "bias"(with permission from member);
3. Member asked to withdraw from (a) discussion (b) formulation of or voting on recommendations or (c) meeting; and
4. In rare cases, the individual's appointment may be terminated.

Advisory Committee on Immunization Practices (ACIP) - US

Appendix 4. ACIP Work Group Screening Record for Conflicts of Interest

Conflict of Interest Disclosure for Participants in ACIP Work Groups

ACIP Work Groups (WGs) serve in a key scientific role in support of vaccine policy development by the ACIP. A WG includes two or more ACIP members, one of whom serves as WG Chair, a CDC lead staff person, and other invited non-federal government WG members. Other WG members may include ACIP liaison representatives and ex officio members, and invited subject matter experts[1]. Work Groups are convened solely to gather scientific information related to vaccines and the diseases they prevent, and to analyze relevant issues and data for review and deliberation by the ACIP. ACIP WGs do not make decisions or recommendations and do not advise agencies, but report to ACIP, which is the parent Federal Advisory Committee. Because WGs do not vote on policy recommendations, do not include a quorum of voting ACIP members, and report findings to the ACIP rather than the government, procedural requirements of the Federal Advisory Committee Act (FACA) do not apply to WG meetings.

Despite the fact that FACA procedural requirements do not apply to ACIP WGs, CDC is sensitive to the possibility that conflicts of interest could interfere with the effective functioning of a WG. In order to avoid undue influence or the appearance of a conflict of interest in WG discussions, the WG Chair and CDC lead conduct screening for potential conflicts upon establishment of the WG, and request periodic updates from WG members to ensure that financial conflicts are not present and/or have not changed.

Because ACIP WG participants are most familiar with their own situations, their personal responsibilities include the following: (1) to alert the WG Chair and CDC lead about any possible conflict of interest that may impact on perception of impartial and fair activities of WG members; and (2) to identify and certify on the attached conflict of interest screening form (a) any aspect of the work of this ACIP WG where a conflict of interest exists, and (b) that there will not be, and has not been, involvement in the efforts of this WG where participation constitutes a conflict of interest. In addition, the WG Chair or CDC lead, in consultation with the ACIP Executive Secretary, may determine that a particular situation involves a conflict of interest or the appearance of a conflict of interest and requires that the potential participant not be involved in some or all of the ACIP WG process.

There are several bases for conflict of interest: employment, financial benefit, personal relationships, or other interests. If applicable, any one condition may serve to disqualify a potential WG member from participating in the WG. People with conflicts of interest (e.g., vaccine manufacturers and their representatives) may present data to WGs if invited to do so by the WG Chair and CDC lead, and answer questions, but may not participate in other WG functions.

The following guidance and definitions will assist in determining whether a conflict of interest exists. This guidance is not all-inclusive, due to the variety of possible conflicts of interest and the potential for appearance of conflicts of interest. Therefore, WG members should consult the WG Chair and CDC lead when there is any question about participation in WG activities. The CDC lead may confer with the ACIP Executive Secretary and/or CDC legal counsel if necessary.

GUIDANCE AND DEFINITIONS

A financial conflict of interest exists when a participant has an interest in a vaccine product or pharmaceutical company that manufactures vaccines that may affect his/her imputed financial interests or potentially bias his/her approach to development of options for recommendations for use of that vaccine, or of a competing vaccine. A participant who has a conflict of interest for a vaccine for which policy is being developed, or with the manufacturer of such a vaccine, may participate in an ACIP WG only as a consultant with activity restricted by the WG Chair and CDC lead to that essential to provide information critical to the efforts of the WG.

A participant shall be determined to have a conflict of interest if he/she or a close relative of the participant is in a position to receive in the immediate or near term (1) a direct financial benefit of any amount deriving from recommendations for use of the vaccine under consideration; (2) a financial benefit from the vaccine manufacturer; or (3) has any other financial interest in the vaccine or manufacturer.

Regardless of the level of financial involvement or other interest, if the participant feels unable to provide objective advice, he/she must recuse him/herself from the WG activities at issue. The ACIP WG process relies on the integrity of each participant to identify to the WG Chair or CDC lead any real or apparent conflicts of interest that are likely to bias the reviewer's evaluation of an application or proposal. These include:

1. A person will not be considered for WG membership if that person or a member of their immediate family is employed directly by a vaccine manufacturer or its parent company. A member of the immediate family includes spouse or domestic partner.
2. A person will be not be considered for WG membership if that person is a holder of, or otherwise is entitled to royalties or other compensation for, a patent on a vaccine product or process, immunologic agent, adjuvant or preservative that can be used for a vaccine that may come before the ACIP during the anticipated term of the concerned WG.
3. To be considered for membership in an ACIP WG, a person must agree to resign any paid or unpaid[2] advisory or consulting roles to a vaccine manufacturer (except participation in clinical trials or service on data monitoring boards) to perform work related to vaccines expected to be considered, and to forego such paid or unpaid consultation or membership (except participation in clinical trials or service on data monitoring boards) during his/her tenure on the ACIP WG. WG

members are required to disclose participation in clinical trials and service on data monitoring boards.

4. WG members must agree that during their tenure on the ACIP WG, they will not serve as a paid litigation consultant or expert witness in litigation involving a vaccine manufacturer.
5. Potential WG members must agree that during their tenure on the WG they will not accept honoraria or travel reimbursement directly from a vaccine manufacturer for attendance at scientific meetings or to present a lecture. They may receive travel reimbursement and/or honoraria for CME presentations where the source of funding is an unrestricted grant to the CME provider by a vaccine manufacturer and where all CME rules and regulations are followed.
6. Except as allowed under 3, potential WG members must agree that during their tenure on the WG they will forego solicitation or acceptance of funds from vaccine manufacturers.
7. Federally registered lobbyists may not serve as ACIP Work Group members.

Work Group members have an ongoing obligation to bring any new information regarding potential conflict(s) of interest to the attention of the WG Chair and CDC lead. In addition, WG members must inform the WG lead if they are contacted directly by a representative of a vaccine manufacturer regarding a vaccine under consideration by the WG on which they serve; the CDC lead will then inform the ACIP secretariat of any such contact.

CERTIFICATION

All ACIP WG participants must certify that they have read these guidelines and that, to the best of his/her knowledge, he/she has disclosed all conflicts of interest that he/she may have with the vaccines under review and the manufacturers of those vaccines or of competing vaccines.

The Work Group Chair and CDC lead are advised to have each potential WG member review this document and complete the attached questionnaire upon establishment of the WG; and to request that WG members at the opening of each WG teleconference or meeting briefly state if there have been any changes in their conflict of interest information. In the event that conflicts of interest arise, the concerned member should recuse her/himself from the relevant discussion.

References:

Conflict of Interest Act, S.C. 2006, c. 9, s. 2, pages 1-33, Current to March 18, 2013
Published by the Minister of Justice at the following address: http://laws-lois.justice.gc.ca
NACI Conflict of Interest Document

Case Developer: Dr. Caroline Quach, McGill University

[1]Federal law (18 U.S.C. õ208) prohibits Federal executive branch employees, including Special Government Employees (e.g., members of Federal advisory committees such as the ACIP), from participating in matters in which, to their knowledge, they, their spouse, domestic partner minor child, or organization has a financial interest. WG members who are voting ACIP members or CDC employees annually file a Confidential Financial Disclosure Report [form OGE-450] with CDC's Ethics Program Activity Office. This conflict of interest questionnaire applies to WG members other than voting ACIP members or CDC employees (FTEs).

[2] To the extent unpaid work is performed for a manufacturer, the individual must agree to not seek or accept pay in the future for the unpaid work performed for a manufacturer during tenure on an ACIP WG.

CCHCSP CASE STUDIES

CASE C: Health Clinician Scientist/Researcher – What? How? Where?

PREPARATORY READING

CCHCSP Handbook Chapter 11a

CCHCSP Handbook Chapter 11b

CASE DETAILS:

Amy McCarthy and Brittany Robertson met during their undergraduate studies in occupational and physical therapy at the University of Alberta. Following graduation, Amy began her career as a pediatric physical therapist at the Alberta Children's Hospital and Brittany worked in a pediatric rehabilitation center as an occupational therapist. After 2 years in the field, Brittany began graduate studies in the faculty of occupational therapy as she wanted to learn more about research, and explore the possibilities of a research career. Amy continued to work at the hospital where her patients were children presenting with neurological conditions.

Brittany intended to complete a PhD in occupational therapy as her ambition was to teach at the University level while doing research in the field of rehabilitation. However, she did not want to completely give up her clinical practice. Therefore, she kept working one day a week at the pediatric rehabilitation center, in addition to her full time PhD studies. Working in the rehab center facilitated recruitment for her PhD study and has also kept her close to the patient population and other clinicians. Brittany has now completed her PhD and has been offered a position as a professor at University of British Columbia. Ideally, Brittany would like to combine this academic appointment with a clinical position at a pediatric facility. However, the description of the position includes 65% research, 25% teaching as well as some administrative service with no mention of clinical duties.

Amy became interested in how social and environmental factors could impact on the physical and emotional well-being of children with disabilities. Amy felt that being involved in research while doing clinical work would promote a more evidence-based practice thereby helping her become a more effective clinician. Amy began to explore opportunities on how to combine her clinical work with research.

Amy has communicated her interest to become involved in research with colleagues, professionals and physicians and has been approached to work as a research coordinator on a study related to child development. Amy feels that this is a perfect opportunity which will complement her work as a clinician but is concerned about how her employer will react to freeing her up for this new position.

Learning objectives:

1. To appreciate the career possibilities for (non-physician) health clinician scientists.
2. To develop skills in negotiating with an employer or a potential employer both in the academic and clinical sites.

3. To understand the steps involved in becoming a successful scientist/clinician.
4. To develop the skills necessary to deal with a variety of work place issues in both the clinical and research settings.

Questions:

1. Ideally, what type of position would you envision for yourself?
   a. Tenure track with clinical component
   b. More formal research training opportunities when following a non-tenured track
   c. Clinician scientist with no tenure track
2. How would you negotiate this position and where would you explore these career possibilities?
3. List the benefits that you could bring to the table for both the academic and clinical settings.
4. Describe the specific skills and competencies which should be developed in preparation for a (non-physician) health clinician scientist/researcher position.

Case developers: Dr. Keiko Thomas, Ms. Lynn Dagenais, and Dr. Isabelle Gagnon, McGill University

CCHCSP CASE STUDIES

CASE D: Case Reports: Process and Ethics

CASE DETAILS:

Melissa is a pediatric resident and is looking for opportunities to develop a research component to her career. She has admitted a teenage boy with progressive swelling of the neck and face. The presumed diagnosis is sclerodema. Further testing shows evidence of both active streptococcal and Ebstein-Barr virus (EBV) infections. Sclerodema is confirmed by skin biopsy. Melissa and the pediatric rheumatologist following the teenager discuss the results. Both Melissa and the rheumatologist have never seen this condition before and recognise it to be something very rare in children. Further reading reveals a possible association with streptococcal infections, however, a link with EBV has not been described. Melissa inquires whether the rheumatologist is interested in writing up a report on the case. The rheumatologist says that she is not very interested in research, but is willing to help if Melissa takes the lead in writing it up. While in hospital, the patient has photographs done for which a consent was obtained. At an outpatient appointment following treatment, the patient's mother remarks how dramatic the change in appearance has been since the onset of the illness and promises to bring the most recent school photograph to help document the change.

Melissa spends the next few days searching the medical literature which confirms that the condition is very rare with few reports in children. She meets the rheumatologist in the hall one day and tells her that their case seems to be unique. The rheumatologist is pleased and suggests that Melissa check with their hospital's research ethics board about what approvals would be needed to publish a case report. The ethics board says that the rheumatologist should obtain consent from the patient to write up the case, but that a full research ethics proposal is not required. Melissa thinks that getting the case submitted should be straight-forward.

Over the next month, Melissa writes up the case report based on the patient's chart and discussions with the pathologist who analyzed the patient's samples. She identifies an appropriate journal to submit the case, and e-mails the rheumatologist to remind her about the need for her to get consent from the patient to publish the case. The rheumatologist e-mails back to say that she will discuss it when she sees the patient for follow-up. A few more weeks pass. Melissa sees the rheumatologist who tells her that she saw the patient, but that it was during a busy clinic and she did not have time to discuss the possible case report with the patient and his parent. She tells Melissa that she will discuss it with the patient at his next follow-up in six months. After the meeting, Melissa is a little disappointed given that she thinks the case report is nearly ready to be submitted for publication. To help push the report along, she e-mails what she has written up so far to the rheumatologist. Two months pass and she still has not received any response back. Given that this case report would be Melissa's first opportunity for a publication, she is keen to get it submitted, but she does not want to keep bothering the rheumatologist about it.

Learning Objectives:

- To understand the process for identifying whether a case should be published.

- To understand the process of writing a case report and submitting it for publication.
- To understand the challenges which sometimes arise when engaging clinicians in research
  To understand the ethical requirements for publication of a report on a single patient.

Questions

1. How should you determine whether an interesting case should be written up as a case report?
2. What components make up a case report?
3. What are the steps that are required to submit a case report at your institution?
4. Should Melissa have started writing the case report without prior consent of the patient's family?
5. What should you do if another person who you are dependent on for completing your research project seemingly loses interest in it? What should Melissa do in this particular case?
6. What approaches could Melissa take to get the case report submitted?
7. Discuss authorship of a case report such as this. Who should be included as co-authors (keeping in mind that authorship on case reports is often limited to a small number for many journals)? Who should be first and last authors and does it really matter?
8. Discuss the use of images for publication. What types of photos can be helpful? How does one obtain consent? How does one arrange for photographs for patients in hospital or in clinic?

Additional Resources

Chelvarajah R, Bycroft J. Writing and publishing case reports: the road to success. Acta Neurochirurgica; 2004, 146: 313-316. DOI 10.1007/s00701-003-0203-2

Jenicek M. Clinical case reporting in evidence-based medicine. Oxford: Butterworth-Heinemann; 1999:117.

Peebles E, Pushpanathan C, Pirzada S, Dancey P. Face and neck swelling in a 16-year-old boy. BMJ Case Reports 2012; doi:10.1136/bcr-2012-006747.

Case Developers: Drs. Roger Chafe, Leigh Anne Newhook and Paul Dancey, Memorial Univesity of Newfoundland

CCHCSP CASE STUDIES

CASE E: Navigating the 'Rocky' Course of Authorship

PREPARATORY READING

CCHCSP Handbook Chapter 12

CASE DETAILS:

Dr. Robert Laine is a newly appointed nutritionist clinician scientist at the University of Calgary, home of the Rocky Mountains. He is co-supervising a resident, Dr. Gisele Robin, during a research rotation in Pediatrics. The other co-supervisor, Dr. Michael Powers, is a senior research scientist at the Hospital Research Institute. Together, the three are conducting a qualitative study examining the experience of work-life balance in clinician scientists at their academic health center. The three were involved equally in the study design. The resident drafted the ethics application and conducted the interviews and collected the data. The three were involved equally in the data analysis.

Dr. Powers asks Dr. Laine to write the first draft of the manuscript because Dr. Laine had protected research time. When it came time to discuss authorship, Dr. Laine thought that he should be first author since he was writing the paper and had been involved in most aspects of the study. He thought that the authorship order should be the following: himself as first author, then resident, then the senior scientist. Dr. Powers, however, was uncertain and so he approached a senior research colleague for advice. The response was that it would be of more benefit for the resident to be first author since the nutritionist clinician-scientist would have lots of opportunity to be first author throughout his career.

Learning Objectives:

1. To learn about attribution of authorship in manuscript publication.
2. To determine what constitutes misconduct or misattribution of authorship.
3. To explore effective methods of communication with multiple stakeholders with varying levels of power.

Questions:

1. What factors should Dr. Laine consider when determining his best course of action in this situation?
2. To whom might Dr. Laine speak to seek his own advice?
3. If Dr. Laine agrees to be second author, is this compromising the research integrity?
4. Are there rules/guidelines for determining authorship?

CASE E - TWIST

English is not Dr. Robin's first language and Dr. Laine spent a number of hours re-writing the ethics application for English grammar as well as content. Dr. Robin will be completing her residency in 2 months and has just accepted a job outside the province.

Learning Objectives:

1. To learn about attribution of authorship in manuscript publication.
2. To determine what constitutes misconduct or misattribution of authorship.
3. To explore effective methods of communication with multiple stakeholders with varying levels of power.

Questions:

1. What factors should Dr. Laine consider when determining his best course of action in this case?
2. To whom might Dr. Laine speak to seek his own advice?
3. If Dr. Laine agrees to be second author, is this compromising the research integrity?

Resources:

Guidebook for New Principal Investigators CIHR Institute of Genetics by Roderick McInnes, Brenda Andrews, Richard Rachubinski http://www.cihr.ca/e/27491.html

International Committee of Medical Journal Editors - "Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication" - Available online at: http://www.icmje.org/

Street JM, Rogers WA, Isreal M, et al. Credit where credit is due: Regulation, research integrity and the attribution of authorship in the health sciences. Social Science & Medicine. 70;1458-1465.

Improve Your Ability to Handle Workplace Conflict. An Interview with Judy Ringer

Sommers MS. Negotiating authorship: Strategies and hazards. Clinical Nurse Research. 2011;20(2):115-119.

Case Developer: Dr. Liisa Holsti, University of British Columbia

COACHES CORNER

Experts to Invite:

If your Centre has a "conflict resolution" advisor in the Human Resources department, consider such an advisor as an invited expert. If not, a senior researcher experienced in dispute resolution and mentoring can lead discussion on the workplace dilemma.

Overview of the Case:

The learners should become familiar with the concept of when discussions of authorship should be undertaken with a research team. In this case, it doesnot appear that this discussion took place at the beginning of the project when everyone's roles were outlined. Furthermore, the learners should be aware that many journals stipulate roles for authorship and provide specific guidelines. Determining what the best "win" "win" situation is while maintaining the researchintegrity is key.

In this case, it may be that once Dr. Robin leaves the hospital to take on her new job, that she will have little time to finish the manuscript. Then, discussions should also take place before she leaves as to deadlines for completion with the understanding that, after a reasonable period of time, authorship order would change and the manuscript would be submitted. Other points Dr. Laine might consider is that he will remain at this hospital and wants to develop good working relationships with people outside

his department. Dr. Laine can also get advice from his own department head and suggest that the department head may need to become involved in resolving this conflict. Taking this problem up the ranks has the potential to bring a different level of intensity to the issue. Dr. Laine may further consider that even though the reality is that he will write the first draft of the paper and Dr. Robin is listed as first author,he can list Dr. Robin as a trainee he has supervised and that would be of benefit to both parties.

Case Developer: Dr. Liisa Holsti, University of British Columbia

CCHCSP CASE STUDIES

CASE 1: Wheezing in Winnipeg

PREPARATORY READING

CCHCSP Handbook Chapter 1: Basics in Research Ethics

CCHCSP Handbook Chapter 3: Regulating Research

CCHCSP Handbook Chapter 4: Participation of Children in Research

CCHCSP Handbook Chapter 6A: Research Design

CCHCSP Handbook Chapter 6B: Research Design

CASE DETAILS:

Originally from Moose Jaw, Saskatchewan, Victoria Smith completed paediatric training in Winnipeg and became interested in solving clinical problems with multidisciplinary teams. She had an outstanding experience in Winnipeg, receiving several awards for her research.

After her residency, she accepts a one-year locum outside the city, replacing a senior paediatrician with many patients suffering from chronic diseases such as asthma. The time is not as busy as she had hoped, so she starts looking for something to keep herself stimulated. A respiratory technician colleague from Winnipeg, Janet Current, tells her about a hypothesis on why asthma prevalence is increasing in Canada. Janet believes it is a result of children becoming sedentary, spending too much time watching television, playing video games, and surfing the Internet.

Victoria is aware of some physiology data that would support this hypothesis. However, she does not have a good understanding of how children (with or without asthma) make choices about participating in recreational activities. She thinks the hypothesis poses an important question and warrants conducting a research study. They decide to submit a research proposal to their hospital.

On the basis of a two-page proposal to the hospital board, Victoria and Janet receive $10,000 to undertake a feasibility study involving children ages 5-15. As Janet holds a position in the asthma clinic, they believe participant selection will be quite simple.

Learning Objectives:

1. Appreciate various study designs (quantitative and qualitative) to address a hypothesis.
2. Identify the various ethical considerations of each design.
3. Choose an exposure definition and a disease definition that you would use in your study and evaluate the relationship between them.
4. Identify the role of the research ethics board in your organization.

Questions

1. Select two study designs to evaluate the stated hypothesis.

2. Identify the benefits and limitation of the two study designs.
3. Identify opportunities for "seed funding" at your local site.
4. What study could be undertaken with such resources?
5. Discuss the ethics of involving children in the decision-making process.
6. Describe the concepts of assent and dissent and the related limitations or difficulties with the approach.
7. Describe how the responsibilities of the researcher (and the research ethics board) may change depending on the child's decisional capacity.

References

Kleinbaum DG. ActivEpi. New York: Springer-Verlag, 2002.

Shapiro ED. Case-control studies. Pediatric Infectious Diseases Journal. 22(1): 85-7, 2003.

Case developer: Bob Bortolussi, Dalhousie University. Revised July, 2009.

Details of this, and other case scenarios, are entirely fictional. Names of individuals, cities, hospitals, universities and any other identifiers have no relationship to the situations described.

COACHES CORNER

Learning Objectives:

1. Appreciate various study designs (quantitative and qualitative) to address a hypothesis
2. Identify the various ethical considerations of each design
3. Choose an exposure definition and a disease definition that you would use in your study and evaluate the relationship between them.
4. Identify the role of Research Ethics Board in your organization.

This may be the first time the group has met, so it will be useful to allow each member to introduce themselves and also for the preceptor to outline the overall goals of CCHCSP Curriculum.

The objectives for this case are: (1) to understanding the research ethics issues and (2) appreciate that there are a variety of approaches for analysis. Every institution will have a different culture and different Research Ethics Board regulations, thus gaining local expertise at the meeting will be very important. For some participants this may be their first exposure to Qualitative methodology as well.

Case Overview:

This case focuses on analytic methods and research ethics principles. The first part of the case illustrates some of the situations that may lead to developing a hypothesis. Some discussion on hypothesis driven approaches may occur.

The second aspect deals with the practical approaches that may be taken in attempting to address the issue with a limited budget. When will a pilot study be appropriate and how can one develop a strategy to move ahead after the pilot.

Experts to invite:

The objectives fall under the Research Ethics and Research Analysis modules of the CCHCSP. Please consult chapters 2, 3, 4, and 6 in advance. We suggest inviting two guests who are recognized in your Centre for expertise in these issues.

1. A research ethics expert might be the chair of the ethics board or a member of the Department of Bioethics at your University. (When we did this in Halifax the first time, the department head of the Bioethics Department joined us. It was an educational experience at every level.)
2. Someone with expertise in qualitative research should be able to advise the group on when qualitative or quantitative methodology would be appropriate. Since most qualitative methodologists have a background in quantitative methods this individule would be my first choice. Inevitably the person will state they don't feel comfortable giving advice on "the other" method. At the level of the trainees, this is probably not an issue. Often there will be one or two in the group who have training as well in the methodologies.

Case 1 Developers: Bob Bortolussi and Janet Curran, Dalhousie University

Revised Jan 26, 2007.

SELF TEST

Q : Advantages of cohort studies include all of the following items except one

T: Least prone to bias when compared to other observational study designs

F: Forward directionality looks at cause before effect

F: Can be used to study several diseases

F: Inexpensive and less time-consuming than case control studies

CCHCSP CASE STUDIES

CASE 2: Applying for a Post-doctoral Fellowship

PREPARATORY READING

CCHCSP Handbook Chapter 11B: Your Academic Home: Mentoring

CCHCSP Handbook Chapter 11C: CV

CCHCSP Handbook Chapter 14: Presentations

CASE DETAILS:

Peter van der Hoek, originally from Gouda in the Netherlands completed his undergraduate and training in human movement sciencesat the Vrije Universiteit, Amsterdam. He received an MSc and isalmost finished a PhD in neuroscience at Erasmus MC, Rotterdam,where he is doing outstanding research on cerebral palsy using computational neuroscience. Peter also has a clinical interest in the physical management of cerebral palsy and a passion for clinical care.

Peter is considering post-doctoral training at an institution fostering collaborative and translational research. His aim is to better understand the nature of pathological movement in children with cerebral palsy and to identify new medications or interventions to assist in retraining dysfunctional movements. He has identified several institutions in North America andEurope that have posted advertisements in this area.

Peter is very excited about a clinical research position at Harvard University and hopes he may be able to join the physical therapy research group. After sending his CV and letters to training sites, he receives a phone call from Dr. Greg Turnbull, his potential supervisor at Harvard. Greg invites him to visit in order to explore the fellowship possibilities and to present a short seminar on his research in Rotterdam. This will be an excellent opportunity for Peter to show how capable he is and to find out if Harvard will be the right place for him.

Learning Objectives:

- Prepare yourself to apply for a clinician scientist training program.

Tasks

1. Prepare your curriculum vitae using your own background information in a format appropriate for submission to a post-doctoral position.
2. Develop separate worksheets to compare the centres you apply to. What should you know, how will you evaluate, and how will you ultimately decide the following:
    a. Environment: how good is the institution; is it an exciting place to work?
    b. Supervisor: track record and skills of supervisor?
    c. Research project:what are reasonable expectations?
    d. Others (salary, benefits, additional responsibilities)
3. Prepare a Powerpoint presentation that you could give of your own research work.

References and Links:

Academic Scientists at Work: ed. J.M. Boss and S. H. Eckert, Kluwer Academic/Plenum Publishers. 2003

On the determinants of academic success as a clinician scientist, D. Sackett, Clin Invest Med 24:94-100. 2001.

The making of a physician-scientist. The process has a pattern:lessons from the lives of Nobel laureates in medicine and physiology, S.L. Archer, Eur Heart J 28:510-514. 2007.

Case Developers: Richard Keijzer Erasmus MC, Rotterdam and Robert Bortolussi, Dalhousie University. Revised July, 2009.

COACHES CORNER

Learning Objectives:

1. How to apply for a Post Doc training program.
2. To prepare a short power point (slide show).

Experts to invite:

This case will allow senior faculty members who are familiar with recruiting post doctoral level clinician-scientists to share personal experiences. Ask two senior faculty members (perhaps a department head) in order to have discussion from two perspectives.

Case Overview:

The case describes Peter van der Hoek, from the Netherlands who is just completing his PhD and is interested in pursuing post doctoral or fellowship training. The participants at the meeting should be encouraged to put themselves in the situation of making such an application. The learning experience will be most effective if the trainee “dives in”. How will they prepare themselves? How will they evaluate the merits of different sites etc.?

Some junior members in the group may not be familiar with the elements of a C.V. They may have some reluctance to share their CV. with others. One solution for this may be to indicate that the CV will be self-assessed and not discussed or distributed. The preceptor should outline the elements of a well written CV based on experience in interviewing candidates.

A mock CV might be presented in an overhead. What do senior faculty really look for, what are the Do’s and Don’ts?

For the worksheet exercises, I suggest trainees divide into groups who independently refine their thoughts on the elements of all three worksheets. Alternatively, the groups may work on only one of the three worksheets.

The visit to the university will help trainees focus on their needs and expectations and how to articulate these. I suggest senior staff or more senior trainees relate their own experience.

Resources:

Academic Scientists at Work: ed. J.M. Boss and S. H. Eckert, Kluwer Academic/Plenum Publishers. 2003 (**Excellent reference tool)

On the determinants of academic success as a clinician scientist, D. Sackett, Clin Invest Med 24:94-100. 2001

The making of a physician-scientist: lessons from the lives of Nobel laureates in medicine and physiology, S.L. Archer, Eur Heart J 28:510-514. 2007.

SELF TEST

Q: Which one of the following statements about making a scientific presentation is the MOST correct?

F1: . The primary goal of the presentation is to entertain. Colour and animation are useful tools.

F2: If you are to give a 10 minute talk, a useful rule will be to show about 20 slides (2 per min).

F3:Each slide should have about 10 to 20 lines.

F4: 4. All of the above

T5. None of the above

CCHCSP CASE STUDIES

CASE 3: Workplace Dilemmas and Company Contracts

PREPARATORY READING

CCHCSP Handbook Chapter 9: Commercialization

CCHCSP Handbook Chapter 11B: Your Academic Home: Mentoring

CASE DETAILS:

While waiting to complete his PhD thesis and arrange a post-doc position, Peter van der Hoek accepted a teaching assistant's position at the department of Neurophysics, University of Rotterdam. Some of his friends had warned him that the department had a reputation of hiring based on "politics" rather than skills. During his interviews he was assured that bad hiring practices had been replaced with fair, open, professional ones.

A few months into the job he discovers that a senior teacher's son, who has lost his position in a pharmaceutical company, has been given a position supervising junior teaching assistants, a position that has not been posted and one that Peter feels qualified to fill. Peter's superiors want him to support and work with the new person. Apart from some internal politics like this, Peter likes his position as a teaching assistant and the opportunities he has been offered to develop a research project with his supervisor.

During the year at the University, Peter expands his research interests. When not writing his thesis or working as a teaching assistant. Peter reads reports on the efficacy of a new drug that showing favorable results in adult quadriplegic patients. Peter discusses the reports with his supervisor, Lisa Houtman, who proposed they work together in a pilot study on children with severe cerebral palsy. Lisa, a pediatric neurologist, is interested in the drug, but is not able to assess the effects on fine movement. Peter proposes a method to assess fine motor movement in young children with cerebral palsy. Peter and his supervisor decide to ask a corporation for support to conduct a research project.

The company indicates that they are willing to discuss the proposal but that Peter and Lisa must sign a confidentiality agreement and, if they decide to procede, a sponsored research agreement contract. Neither Peter nor Lisa have ever signed such an agreement before and are unsure of their responsibilities to the University.

Learning Objectives:

1. Develop skills to deal with workplace issues and find where to go for help.
2. Understand differences between sponsor-initiated vs. researcher-initiated research.

Questions:

1. How should Peter react to the new teaching supervisor and the selection process that was followed?

2. What are a confidentiality agreement and a sponsored research agreement and who has responsibility to sign?
3. To whom should Peter disclose the agreements?
4. How should Peter and Lisa protect themselves, their institution, and the intellectual property, while working with the corporation?

References and Links

Renuke Vembu. Dealing with toxic team environment

"Improve Your Ability to Handle Workplace Conflict," an Interview with Judy Ringer.

Case developer: Robert Bortolussi, Dalhousie University and Richard Keijzer Erasmus MC Roterdam. Revised July, 2009

COACHES CORNER

Learning Objectives:

1. Understand how to deal with workplace issues without losing ones cool and where to get help.
2. Understand the basic terms and conditions of a confidentiality agreement and differences between sponsor-initiated v. researcher-initiated research

Experts to invite:

1. For the workplace issue: If your Centre has a "conflict resolution" advisor in the Human Resource department, consider them. If not, a senior researcher experienced in dispute resolution and mentoring can lead discussion on the workplace dilemma. Some arguments are listed below and may serve as a frame of reference.
2. For the contract issue: These are addressed in the CCHCSP Module, which should be sufficient for the questions. I suggest you ask participants to use their group discussion board to start a Q and A dialogue. The Contract Management or Industry Liaison Officer at your institution might be recruited to monitor the email discussion and respond if necessary.

Case Overview:

Peter accepted a teaching assistant position at Erasmus MC. At the interviews, he asked about the department's reputation for hiring based on "politics" rather than skill. The responses were consistent: bad hiring practices had been replaced with fair, open, professional ones. Now a senior researcher's son who lost his position in a pharmaceutical company has been given a senior teaching assistant position in the department. Peter's superiors want him to support and work with him. Apart from this, Peter likes the position. What should he do?

Re Workplace Dilemma: There are several possible responses. Here are 2 examples:

View #1: The issue at hand is whether Peter will compromise his integrity by working with and mentoring the new person. In this situation, Peter had nothing to do with the appointment, it was a decision made by the powers that be. Peter had every indication to believe that such hiring practices

would not be tolerated given his initial discussions. Thus, by staying in his present role, he is not violating any personal ethics but rather rising to a challenge and trying to induce change into an organization that needs it.

We live in a world where often times the people around us fail to exercise reasonable judgment or adhere to a commitment. If you distance yourself from the situation, than they get away with it and this type of behavior is perpetuated. If you endeavor to change things by standing your ground and positively influencing the wrongdoers, we will be one step closer to building a more sensible society.

View #2: Peter asked during his interview about the appointment practices and inequities of hiring non-qualified individuals. Thus this means it was an important part of Peter's personal make up. Peter could discuss this with his boss, indicating that he would feel uncomfortable working with this individual based on their lack of credentials and suggest another individual who has more years of experience working at the lab who can guide this individual. If Peter is forced to make a decision, he might thank his boss and move on. Peter has the qualifications and shouldn't be expected to "carry" the ex-pharma scientist and make him look good. Peter has worked hard to attain his position and credentials.

Upon resigning from the research lab he will be able to make everyone responsible for the hypocrisy cringe with shame. He should leave proudly and loudly!

The company indicated that they were willing to discuss the proposal but that Peter and Lisa Houtman must sign a confidentiality agreement and, if they decide to precede, a sponsored research agreement. Neither Peter nor Lisa had ever signed such an agreement before and were unsure of their responsibilities to the University.

There are a few key points that should be addressed in the discussions:

(i) Contracts need to be reviewed carefully and signed by the appropriate signing authority. The participants need to think about confidentiality, publication, intellectual property etc. Dealing with companies is normal practice and if done appropriately, industry collaborations can be of great benefit to clinician scientists.

(ii) Clearly defining each party's role and responsibilities is key, and it is imperative to protect the clinician and institution's scientific, academic, legal and medical rights.

(iii) The concepts of ownership and protection of intellectual property, and its subsequent commercialization, should be addressed as a component of any agreement pertaining to research.

Resources:

The Globe and Mail has column each Wednesday called "Workplace Ethics 101" you will find similar ethical dilemmas discussed here: www.theglobeandmail.com

Improve Your Ability to Handle Workplace Conflict An Interview with Judy Ringer

The CCHCSP Module 9 covers most of the issues. More information is available on line to answer more contract related questions. http://cchcsp.ca Once they have logged on to www.cchcsp.ca, they should go to Curriculum / Intellectual Property and Conflicts of Interest / "Welcome to the World of Contracts"

Case 3 Developers: Bob Bortolussi, Dalhousie University and Richard Keijzer ErasmusMC with reviews by Thierry Lacaze (U Alberta), Janet Curran, and Marie-Claude Gregoire (Dalhousie).

Self Test

Q: Which one of the following statements is TRUE?

T: 1. Most institutions, and not the researcher, negotiate the terms of a contract in which the researcher participates. The researcher is not a legal party.

F: 2. The researchers have the authority to legally bind an institution in a contract.

F: 3. Executives of an institution have sole responsibility to review the terms of a contract.

CCHCSP CASE STUDIES

CASE 4: No Rash Decision

PREPARATORY READING

CCHCSP Handbook Chapter 1: Basics in Research Ethics

CCHCSP Handbook Chapter 2: Conflict of Interest & Integrity

CCHCSP Handbook Chapter 3: Regulating Research

CCHCSP Handbook Chapter 5: Culture, Religion and Ethnicity

CCHCSP Handbook Chapter 6A: Research

CASE DETAILS:

Victoria, is not sure what her ultimate career should be following her pediatric residency, but decides to do a locum at a remote hospital in northern Manitoba. Part of her role includes overseeing health care and collecting public health information for First Nations people in her region. Although the practice is not busy, it offers her time to think about her future and engage in her favourite outdoor activity: bird watching.

In autumn, a young Dutch nurse, Marjan de Jong, arrives at the hospital as a volunteer. In addition to her volunteer work, Marjan is taking time from her nursing studies to train for the Elfstedentocht, an endurance speed skating tour held in Friesland when weather permits; northern Manitoba offers a perfect place to train. Victoria and Marjan soon become good friends.

Victoria convinces Indian and Northern Affairs to convert paper-based health-information into searchable electronic data. This is a perfect job for Marjan who needs money to pay expenses. During the day, Marjan trains for skating and in the evening she enters data from 15 years of paper records. As the nights get longer, Marjan makes remarkable progress and finishes the task by the time she leaves in late winter.

One day, a nine-year-old girl from a First Nations community presents with a rash on her arms and legs. The child soon becomes desperately ill and Victoria realizes she has a life-threatening infection caused by Neiseria meningitides called, meningococcemia. The child is soon evacuated by air to the Winnipeg Children's Hospital.

Two weeks later, a 13-year-old boy from a different community presents with meningococcal meningitis. In conversations with a senior nurse, Victoria hears that there have been several such infections in these two communities in past years. She reviews the electronic database and finds eight cases of meningococcal infection in the two villages over 15 years and only one case in the other five communities.

Suspecting environmental or lifestyle factors involved in the higher number of infections, Victoria decides to do a research project using the new electronic database, questionnaires, and other low-cost

tools. She applies to the Department of Indian and Northern Affairs for a grant of $5,000 to do the research. The Department agrees, partly because they have only a limited supply of a newly licensed vaccine to prevent infection against most strains of meningococcus. The research may help to determine who should be offered the vaccine first.

Learning Objectives:

1. To understand differences in conducting investigations for the purpose of clinical, public health or research objectives.
2. To develop an analytic approach to the investigation of an outbreak.
3. To understand privacy and ethical issues on the use of a database.
4. To appreciate issues involved in research involving minority populations.
5. To appreciate principles in assigning authorship in research.

Questions

1. What practical research designs might be used for Victoria's questions?
2. We often use "race" or "ethnicity" as a variable in research: What is the difference between race and ethnicity and how is each of these concepts related to, and different from, genetic differences?
3. What are ethical and privacy issues associated with electronic database use for research and for care?
4. What are the conflicts of interest in this case?
5. How should Victoria plan her research project to ensure it will have a long lasting effect on policy decisions of the Department?
6. Should Marjan be an author on the paper that arises from the research?

Case developer: Robert Bortolussi, Dalhousie University. Reviewer: Noni MacDonald, Dalhousie University. Revised August, 2009

Details of this, and other case scenarios, are entirely fictional. Names of individuals, cities, hospitals, universities and any other identifiers have no relationship to the situations described.

COACHES CORNER

Learning Objectives:

1. To understand differences in conducting investigations for the purpose of clinical, public health or research objectives eg. ethics, record keeping etc.
2. To develop an analytic approach to the investigation of an outbreak
3. To understand privacy and ethical issues on the secondary use of a database.
4. To appreciate issues involved in research involving minority populations.

Questions:

1. What practical research designs might be used for Victoria's questions?
2. We often use "race" or "ethnicity" as a variable in research: What is the difference between race and ethnicity and how is each of these concepts related to, and different from, genetic differences?

3. What are ethical and privacy issues associated with electronic database use for research and for care?
4. What are the conflicts of interest in this case?
5. How should Victoria plan her research project to ensure it will have a long lasting effect on policy decisions of the Department?
6. Should Marjan be an author on the paper that arises from the research?

Experts to invite:

The objectives fall under the Research Ethics and Research Analysis modules of the CCHCSP. Please consult this in advance. I suggest inviting two guests who are recognized in your Centre for expertise in these issues.

1. A research ethicist expert might be invited from your REB, the REB Chair or a member of the Department of Bioethics at your University.
2. Someone with expertise in research design methods for studies involving databases, should be able to advise the group on the merits of different design strategies issues on secondary use of databases. Among the trainees, there may be one who can step in to this role to lead discussion, since there may be one or two in the group who have such training. If not, invite a clinician with expertise in research methodologies/database.

Overview:

Traditional descriptive epidemiology has focused on key features: person, place and time, (or agent, host and environment). An alternative approach focuses on five "Ws"

- **Who** has the disease: age and sex are universally described, but race, occupation, or recreational activities and genetics may also be important.
- **What** is the condition or disease being studied/reported? Develop a clear, specific and measurable case definition.
- **Why** did the condition arise? This is uncertain, but clues could be used to develop future, more sophisticated research designs.
- **When** is the condition common or rare? Time includes important clues about health events. Some temporal relation can be long, or short between exposure and onset. Additionally, some events have regular seasonal patterns.
- **Where** does or does not the disease or condition arise? Geography has a huge influence on health.

Relevance of the research, relates to the public health importance. What is the importance? Are there large numbers involved? Are its societal implications broad? Has it been studied before?

Type of Study Design:

1. The case series is an excellent method to use and contribute to the development of knowledge. The approach is well suited to the study of complex clinical problems in which there are not enough subjects who have the rare problem to allow it to be studied more rigorously. They are typically used to highlight extremely unusual findings. Such reports generally describe a new or innovative treatment or approach, describe a rare condition or address unusual manifestations of a common problem. The principles

guiding data collection are: attention to detailed description of the problem, history, interventions, salient, and mediating factors, context, and measurement of outcomes. Trainees should ask why, exactly, is this observation important? What does it teach us? Does it run counter to some particular cherished truth?

Advantages and Limitations:

- based on the experience of one person, or just a few people,
- the presence of any risk factor may be coincidental,
- lack of an appropriate comparison group

2. Case-control study design would be appropriate as subjects are selected based on the outcomes. Another group of subjects without the outcome of interest is selected as controls. For rare diseases, the odds ratio approximates the relative risk that would be calculated in a longitudinal study.

Advantages and Limitations:

- inexpensive and less time-consuming when compared to cohort studies,
- provides sufficient numbers of cases for rare diseases with long latencies,
- allows several exposures to be evaluated.

but

- is susceptible to both selection and information bias,
- does not allow estimation of risk,
- does not consider more than one disease
- is not feasible for rare exposures.

The case-control study is a basic observational study design that is a retrospective study. It is often quite inexpensive and quick to carry out, but is prone to bias when compared with a cohort design.

Case 4 Developer: Bob Bortolussi, Dalhousie University

Revised August 2009.

SELF TEST

Q: Which one of the following statements is true?

F1: In the context of a research project, the researcher is responsible for maintaining the privacy and confidentiality of research subjects.

F2: The primary mandate of the Research Ethics Committees is to review research projects with the aim of protecting research subjects' rights, safety and well-being.

F3: An author must be somebody who contributes substantially, meaningfully and significantly to the development and progress of a project.

T4: All of the above.

F5: None of the above

CCHCSP CASE STUDIES

CASE 5: Clinical Trials and Clinical Patient Care

PREPARATORY READING

CCHCSP Handbook Chapter 1: Basics in Research Ethics

CCHCSP Handbook Chapter 2: Conflict of Interest & Integrity

CCHCSP Handbook Chapter 9: Commercialization

CASE DETAILS:

While she was a pediatric trainee, Victoria was involved in a clinical trial of a new drug to treat gastric reflux in infants. Victoria's supervisor, Dr. Olaf Vario, is continuing to participate in the study as the site's principle investigator. Preliminary results showed favourable responses in a high percentage of those treated. Victoria and Olaf were encouraged by these results and now that she's moved on to start her own practice, Victoria plans to recruit new patients and become a site investigator.

She asks for an update from her previous supervisor. Although he is blinded on who has received the new drug, Olaf tells her that more of his patients are improving than he had expected. One of the patients in his study site, however, has died unexpectedly and the autopsy findings suggest sudden infant death syndrome (SIDS). Although he doesn't know if this infant had received the study drug or the placebo, he is worried. He has no proof to support any specific concern but he recalls that a year earlier another gastric reflux drug was removed from the market after it was discovered to cause cardiac arrhythmias. Olaf has informed the trial sponsor of his concerns but he feels he is not taken seriously, since he was told to "wait for the final results of the trial before alarming the parents unnecessarily." The trial sponsoralso reminds him that he (and Victoria, as a collaborator) has signed an investigator's agreement containing the following confidentiality clause:

"All information, whether written or not, obtained or generated by the investigators during the term of thisagreement and for a period of one year thereafter, shall be andremain secret and confidential and shall not be disclosed in any manner whatsoever to any third party, except to an appropriateregulatory agency for the purpose of obtaining regulatory approval for manufacture, use or sale unless the information has beenpreviously disclosed to the public with the consent of the sponsor. The investigators shall not submit any information for publication without the prior written approval of the sponsor."

Learning Objectives:

1. To become familiar with the laws and policies governing human subject research and clinicians conducting research.
2. To understand the distinct roles and responsibilities of a researcher and clinician.
3. To appreciate when a clinician may be ina conflict of interest when performing both clinical and research roles.
4. To understand how the terms and conditions of confidentiality agreements may conflict with a clinician's duty to disclose information to protect subjects.

Questions

1. What ethical and contract issues should Victoria consider before becoming an investigator in the trial?
2. What responsibilities should she considerbefore recruiting patients from her practice?
3. What should guideher on her decision on whether to participate in the research study?
4. What should Olaf do in this situation with respect to disclosure of his concerns?

References

Thompson, DF. Understanding Conflicts of Interest. New England Journal of Medicine 1993, 329:573-576.

DuVal, G. Institutional Ethics Review of Clinical Study Agreements. J Med Ethics 2004, 30:30-34

Baylis, F. The Olivieri debacle: where were the heroes of bioethics. J Med Ethics 2004, 30:44-49

Peloso, PM and ML Riley. Controlled Clinical Trials and Clinical Patient Care. Ann Royal Col Phys Surg Can 1998, 31:372-4

Case developer: Bob Bortolussi,Dalhousie University. Reviewers: Nuala Kenny, Janet Curran, andMarie-Claude Gregoire, Dalhousie University. Revised August 2009.

COACHES CORNER

Learning Objectives:

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3. What should guide her on her decision on whether to participate in the research study?
4. What should Olaf do in this situation with respect to disclosure of his concerns?

Experts to invite:

The objectives fall under the Research Ethics and Integrity and the Intelectual Property and Conflicts of Interest modules. Please ask your guest(s)to consult these two module sections in advance. We suggest inviting two guests who are recognized in your Centre for expertisein these issues.

A research ethics expert from your University (Law or Philosphy etc.) who also has interest in issues involving conflict of interest might be invited. Failing that a member of your REB or the REB Chair should be considered.

1. Someone with expertise in contracts and the law to advise the group on the contractual responsibilities, should be saught. The hospital lawyer or a lawyer from the REB would be ideal. These responsibilities are sometimes exaggerated to be perceived as taking president over ethical or safety issues, they do not.

Overview of Case:

The learners should address the issue of when it is appropriate to recruit research subjects from their own clinical practice (be they a pediatrician, a psychologist, or a nurse) and when not.They should understand that patients/parents trust them in their role as caregiver and may believe the clinician is acting in their child's best interests in suggesting they enter their childin the study. The parents may view the request to participate in research as an offer of treatment and may not appreciate that involvement in a research study is very different than receivingtreatment in the care context. Researchers must be confident that the subject (or in this case the parents) fully understands what participation in a research study entails and means for their child and what harms/benefits might arise. Researchers should be familiar with the Tri-Council Policy Statement, the CMA Code of Ethics, and the CMA Policy, "Physicians and the Pharmaceutical Industry" and what each says about the roles of physicians andresearchers. The confidentiality agreement presents a problem because it appears to interfere with the researcher's duty to disclose new risks of harm to the research subject/parents. It is very clear in law and ethics that the researcher has a duty to disclose risks to subjects as part of the informed consent process(See Article 2.4(d) TCPS). The researcher should contact the research ethics board regarding his concerns.

A twist is introduced to heighten concern on the part of the researcher that the study drug may be causing cardiac arrhythmias in some infants leading to their deaths. If Dr Vario has not already gone to the research ethics board, he must do so now and disclose to the subjects/parents the increased risks/deaths that have occurred recognizing this is significant information which may alter their decisions to continue in the study.

Bonus Discussion:

In the actual case involving Dr. Nancy Olliveri, the sponsor took steps to terminate the study at her site and threatened legal action. If the trainees have understood the learning objectives of case 5 and there is sufficient time, you may want to discuss the Olliveri case in more detail. The references cited contain insights into this case. A clinician researcher should obtain legal advice and consider whether s/he should also alert co-investigators and colleagues about the concerns. Will the researcher want to present orpublish the data as the sponsor certainly will not? (Discuss principle 10 of the CMA policy "Physicians and the Pharmaceutical Industry".) How far does the researcher's responsibility extend to protect research subjects beyond those enrolled in his/her trial?

NOTE:

There is now consensus that a "confidentiality clause" such as this is unacceptable. Protection of patent interests is important BUT there is always an obligation to protect participants in research involving humans....that obligation does not just apply to physician-investigators. It applies to all researchers. As the Olivieri case demonstrates, an investigator must go to the REB when there is info during the trial that participantsare being harmed.

We need to highlight that the clinician should NOT be the one requesting consent for participation....way toomuch COI and influence, especially on parents.

References

Thompson, DF. Understanding Conflicts ofInterest. New England Journal of Medicine 1993, 329:573-576.

DuVal, G. Institutional Ethics Review of Clinical Study Agreements. J Med Ethics 2004, 30:30-34

Baylis, F. The Olivieri debacle: where were the heroes of bioethics? J Med Ethics 2004, 30:44-49

Peloso, PM and ML Riley. Controlled Clinical Trials and Clinical Patient Care. Ann Royal Col Phys Surg Can 1998, 31:372-4

Case developer: Bob Bortolussi, Dalhousie University. Reviewers: NualaKenny, Janet Curran, and Marie-Claude Gregoire, Dalhousie University. Revised August 2009.

SELF TEST

Q: Which of the following statement(s) is/are true?

F1: All research that takes place in the world will be reviewed and approved by a Research Ethics Committee (REC).

T1: A confidentiality agreement is meant, among others, to protect a company's rights and interests by restricting access to pertinent information.

F2: .By signing the consent, research subjects acknowledge they accept some risks. The researcher must inform the REC of new developments in the study that may affect safety not known at the original consent, but is not required to inform the subjects.

F3: All of the above.

F4: None of the above

CCHCSP CASE STUDIES

CASE 6: Clinical Trial and Toxicity

PREPARATORY READING

CCHCSP Handbook Chapter 1: Basics in Research Ethics

CCHCSP Handbook Chapter 2: Conflict of Interest & Integrity

CCHCSP Handbook Chapter 9: Commercialization

CASE DETAILS:

Victoria has just arrived in Boston for the first year of a clinician scientist fellowship at the Boston Children's Hospital. Her doctoral thesis will be on vitamin metabolism in children. Shortly after arriving, she is approached to help in a study by analyzing for liver toxins in a clinical trial of vitamin supplementation in children awaiting liver transplantation. A large pharmaceutical company is sponsoring the multinational trial. The hypothesis being tested is that the vitamin supplement slows hepatic degeneration. Physicians in the US, Canada, and several European countries will seek authorization from parents to involve their child in the clinical trial, to perform a liver biopsy (before the vitamins start) and to allow tissue to be used when the liver is removed at transplant.

In order to help Victoria learn some laboratory techniques, her supervisor suggests she agree to assay the tissue samples for toxic metabolic products of the vitamins. She is required to sign a subcontract with the company, acknowledging that her role is limited to performing the assays. The company will give them the HPLC equipment to analyze the tissue for this study and for her own research on other metabolites.

Victoria is excited about using the state-of-the-art equipment,but she soon becomes concerned about the safety of the vitamin cocktail. When she analyses the tissue, she finds that half the samples show high levels of toxic byproducts. The samples are not fully blinded and she suspects that the toxins are present mainly in samples collected after treatment. She decides to inform the company.

Learning Objectives:

1. To become familiar with the ethical issues for involvement of children in research that involves risk.
2. To understand the requirements for use of human tissue.
3. To become familiar with the rules and obligations in contracts and appreciate your obligations to your university.

Questions:

1. What, if any, are the requirements for parents to give permission for a child to participate in a study?
2. Are there other ethical issues?
3. What are the rules at your university for signing a contract with a company?

4. What permission is required in order for Victoria to use the tissue for her own research?
5. To whom does Victoria have the right and responsibility to report her findings?
6. Howwill her ability to report her findings be affected by third party rights?
7. Will she be able to publish her findings?
8. Who will own the intellectual property rights in discoveries relating to her research?
9. Are there other contract issues?

References

Hunter, M. GMC suspends former Alder Hey pathologist. BMJ 2001; 322:320

Check your own university website for information on obligations to the university in contracts with private organizations.

Case developer: Bob Bortolussi, Dalhousie University. Reviewer: Nuala Kenny, Dalhousie University. Revised August 2009.

COACHES CORNER

Learning Objectives:

1. To become familiar with the ethical issues for involvement of children in research that involves risk.
2. To understand the requirements for use of human tissue.
3. To become familiar with the rules and obligations in contracts and appreciate your obligations to your University.

Questions:

1. What, if any, are the requirements for parents to give permission for a child to participate in a study?
2. Are there other ethical issues?
3. Whatare the rules at your university for signing a contract with a company?
4. What permission is required in order for Victoria to use the tissue for her own research?
5. To whom does Victoria have the right and responsibility to report her findings?
6. How will herability to report her findings be affected by third party rights?
7. Will she be able to publish her findings?
8. Who will own the intellectual property rights in discoveries relating to her research?
9. Are there other contract issues?

Experts to invite:

Invited guests to the session should include an expert in ethics, particularly in ethics and risk, and an individual who has expertise on contracts; ideally this would be a lawyer who is familiar withyour university's policies.

Re: Ethical Issues:

1) Encourage discussion about the concept of clinical equipoise. Not everyone agrees with this approach to understanding risk in the context ofresearch that may offer benefit to the child-participant, especially if it exceeds minimal risk. However, it is a way of balancing the need to provide children with the benefits of research with the need to protect them as a vulnerable population.

2) As acomparison point, discussion of the risks of non-therapeutic research and how this influences the ethical assessment of research projects should be part of this case. Given that the reseacherinvolved in this case seems to think that there will be little benefit of the research, should she still take part? Is this research exposing the participants to unnecessary risks? (Indeed, does clinical equipoise exist in this case?)

3) Addressing the personal interest in gaining valuable research equipment and in gaining access to tissue for future research will be important. Could this influence the assessment of the contract terms? How does this fit with current research practices? (This links up with the questions already posed for the case.)

4) Even if a researchprotocol receives research ethics approval, researchers can notobviate their responsibilities to question the estimation of risk and draw attention to how the risk may change over time? Obviously not, but it is sometimes an excuse offered ? "if the REB approved the protocol, then it must be ok...."

Re: Contract and IP issues:

The point of the exercise is to help the students to anticipate as many of the possible outcomes of a research study and appropriate steps that they may want to and/or be required totake in a given situation, and how each contract can affect their entire research program. One cannot determine appropriate contract language without this knowledge. Answers to the questions on contracts depend on what the contract Victoria negotiated (orparticipated in negotiating) states. Where the contract language and Victoria's wishes and/or responsibilities conflict, she should contact the appropriate individual in her institution to discuss her situation.

1. The question of right and/or responsibility will be dictated not only by the contract, but also by law and possibly the organizations with which the student is affiliated (including, but not limited to his/her institution, associations, societies etc.). The contract language must not conflict with any of these requirements. Therefore, the importance of knowing these obligations and setting them out clearly in the contract cannot be overemphasized.

2. One component of an assay that she is using was provided to her by a company under another contract. What are the terms of that contract? Did Victoria anticipatethe possibility that she may wish to use the component in research studies other than the one for which the component was originally provided? Does that contract restrict her from using the component in this particular study? Does that contract restrict Victoria's ability to disclose any results arising from the use of the component to any third party? Does that contract state that the component cannot be used in research studies sponsored by for-profit companies? Who owns intellectual property arising from the use of the component? Has she breached that contract? If yes, what should she do now?

3. The contract will set out whetheror not Victoria can publish her results arising from this particular research study and those arising from her own research studies. In this research study, despite that fact

that Victoria isnot enrolling patients directly, did she anticipate that she may want to publish her findings? Did she make it a term of the contract that she would be an author on any publication arising from the research study, or will she simply get credit for her participation? Perhaps she only has the right to review the manuscript prior to publication. Does Victoria have unrestricted rightsto publish the findings of her own research, or must she disclose these to the sponsor? Again, Victoria should have taken an active role in the contract negotiations regardless of whether or not she is a party to the contract, and ensured that the contract reflected her wishes prior to approving it.

4. Ownership of intellectual property rights in any discoveries relating to the clinical trial and her research will dictate what Victoria can andcan not do in the future? What is the ideal situation? Who reasonably should own the intellectual property arising from this research study? Who reasonably should own the intellectual property arising from Victoria's research? Where Victoria does not own intellectual property, should she be reserving here rights to use that intellectual property for any particular purpose? If yes,what is the purpose? Recall that the component was supplied to Victoria under another contract. Again, does that other contractstate that all intellectual property arising from the use of the component belongs to the owner of the component? If yes, has Michelle agree to offer the same intellectual property rights to two separate entities? If yes, what should she do now?

5. Other contract issues might include termination rights, liability, indemnification and insurance. In the case where Victoria discoversthat she has breached or will be forced to breach the contract she has with the company that provided the component in her assay in order to comply with the contract she entered into with thesponsor of the immediate study, does she have the right to terminate her contract with the latter in order to mitigate any breach that may have occurred to date? What affect will terminating the contract have on her future research plans? What liabilitieshas she exposed herself/her institution to? Does she or her institution have insurance to cover these liabilities?

References:

Hunter, M. GMC suspends former Alder Hey pathologist. BMJ 2001; 322:320

Check your own university website for information on obligations to the university in contracts with private organizations.

Case developer: Bob Bortolussi, Dalhousie University. Revised August 2009.

SELF TEST

Q: For a child or an adult with limited language comprehension and limited decision capacity to participate in a research, which of the following statements is/are correct:

T1: The legal guardian has full decision making authority to enroll the person but must withdraw if benefit/harm ratio becomes unfavorable

F1: Any protest from the individual will preclude research participation

F2: The researcher is obliged to fully disclose harms and risks that are reasonably likely to occur during the research

F3: All of the above. F4: None of the above

CCHCSP CASE STUDIES

CASE 7: Misadventures in New England

PREPARATORY READING

CCHCSP Handbook Chapter 2: Conflict of Interest & Integrity

CCHCSP Handbook Chapter 7: Basic Biology

CCHCSP Handbook Chapter 15A: Writting a manuscript

CASE DETAILS:

Victoria's second major research project during her fellowship will be to study molecular determinants of chronic lung diseases.Her supervisor's lab at Harvard has discovered novel proteins, one of which, pulmonary collagen organizing factor (PCOF), may be a determinant in the lung's response to injury. Victoria has been assigned the task of developing a way to measure tissue-specific expression of PCF.

Victoria is also collaborating with a neonatologist in Boston to determine if PCOF contributes to bronchopulmonary dysplasia (BPD), a chronic lung disease arising in premature infants. The neonatologist has provided samples of lung lavage fluid taken from intubated infants and Victoria has analyzed them for relative concentration of PCOF. The neonatologist has provided her with information on each infant, including date of birth, birth weight, mother's name, and whether the baby has a chronic lung condition. Victoria assumes the neonatologist hasthe appropriate research ethics committee approval for her research.

With no advance notice, the samples stop. Later, Victoria learns that the neonatologist is in trouble with the hospital IRB for not having ethical approval to collect samples. He argues that no approval was needed since the samples were obtained as part of routine care and would otherwise be discarded. He is trying to get "retroactive" approval.

Learning Objectives:

- To understand the ethical requirements for use of human tissue for research purposes.

Questions:

1. What are the implications of this development and should Victoria take any action? Why or why not
2. What research ethics committee requirements would have to be met if thisstudy were done in your country?
3. What are the benefits and limitations of protein assays in such a study? (Note: This is a supplemental question for groups with a participant knowledgeable inthis area of research.)

Sequel

One day a colleague drops by to congratulate Victoria on her article in the Medical Biologist Journal. Not wanting to appear foolish, she simply thanks him, excuses herself, and quickly logs on to find the article.

The neonatologist she was working with has indeed published a manuscript with Victoria listed as the fifth of eight authors. Others include the neonatologist (as senior author), and a neonatal fellow (first author). An editorial commentary says that this is a breakthrough discovery in the understanding of BPD.

As she reads the manuscript, Victoria sees a table of 35 cases and 33 controls showing significant differences in PCOF between them ($p < 0.01$). But she recalls doing more than these 68 samples; in fact, she finds 157 samples on record. Although she doesn't have all of theinformation, she attempts to re-construct the data table using logbook data and clinical information on forms she received. As far as she can determine, the table should have 77 and 80 subjects respectively, with much lower PCOF values in the cases. Her analysis suggests that the p value is not significant ($p = 0.23$).When she discusses the situation with her supervisor, he listens carefully and then says, "This smells a bit funny, it may be due to the use of a select data set. Or, there may be a valid explanation. I'll ask him about it, don't worry."

Learning Objectives:

1. To appreciate the requirements for published authorship.
2. To prepare an appropriate reaction to possible misconduct in research.

Questions:

1. What are the requirements for being included as an author on a research paper?
2. What are the implications of this discrepancy in reporting (both in context of neonatal health and the paper itself)?
3. What should Victoria do about the discrepancy?
4. What are the implications for her as a researcher?
5. How should we report potential misconduct in research?

References and Links

Tri Council Policy Statement on use oftissue

Canadian Procedure for Addressing Allegations of Non-compliance with Research Policies

British Medical Journal Review

Smith R. Fraud in medical research. BMJ 2001Note: you must scroll to 2001 to retrieve article

Kondro W. Call for arm's-lengthnational research integrity agency. CMAJ 2007;176(6):749-50.

Council of Science Editors. CSE's white paper on promoting integrity in scientific journal publications.

Hoey, J. Who wrote thispaper anyway? The new Vancouver Group statement refines the definition of authorship. Can. Med. Assoc. J., 2000, 163: 716-717.

Pan S, Zhang H, Rush J, Eng J et al. High-throughput proteome-screening for biomarker detection. Mol Cell Proteomics 2005, 4:182-90.

Case developer: Michael Rieder, University of Western Ontario. Reviewers: Bob Bortolussi, Dalhousie University and Thierri Lecaze, University of Alberta. Revised August 2009.

COACHES CORNER

Learning Objectives:

The major objective here is to understand the approaches for dealing with potential misconduct. Every case of misconduct will be different but there are common elements inapproaches, depending on the situation.

- To understand the ethical requirements for use of human tissue for research.
- To appreciate the requirements for authorship for publishing in a researchjournal.
- To understand what one should do if one discovers possible misconduct

Questions:

1. What are the implications of this development and should Victoria take any action? Why or why not?
2. What research ethics committee requirements would have to be met ifthis study were done in your country?
3. What are the benefits andlimitations of protein assays in such a study? (Note: This is asupplemental question for groups with a participant knowledgeable in this area of research.)

Sequel

1. What are the requirements for being included as an author on a research paper?
2. What are the implications of this discrepancy in reporting (both in contextof neonatal health and the paper itself)?
3. What should Victoria do about the discrepancy?
4. What are the implications for her as aresearcher?
5. How should we report potential misconduct in research?

Experts to invite:

The objectives fall under the Ethics and Integrity module of the CCHCSP. Please ask the visiting expert to consult this module in advance. We suggest inviting two guestswho are recognized in your Centre for expertise in these issues.

1. An ethicist expert in Tri Council Policy issues on handlingof tissue and conflict of interest.

2. An expert on integrity especially one familiar familiar with standards of authorship forthe university. Many universities will have an “ombudsman” who might be invited. If not, the university may have its policy posted in its web or have a copy available.

Overview of Case:

Victoria learns that a collaborator is in trouble with the hospital IRB (or REB in Canada) for not having ethical approval to collectsamples. He is trying to get “retroactive” approval. This is something that will be granted. The expert should bring out the correct process to follow from the onset of the research and also address how the IRB at your institution might address the existing problem. Should Victoria report this to her sponsor (CIHR)? Answer - Yes.

The second part of the question is with respect to authorship. Basically, the old principle applies that all authors should see the final version of a manuscript before it goes to a journal. This case may be an opportunity to raise issues onauthorship and standards that are now being applied.

The third issue is the implications of what has happened, which appears tobe that the collaborator has elected to select a promising set of data and exclude the larger data set. The implications can beprofound; this might trigger a series of investigations, with risk for research subjects and cost in scant research resources, for an approach that is not likely to work.

What should Victoria do? Clearly, not accept the bromide offered by her supervisor. I'll ask him about it. Don't worry. She will need to follow this up with her supervisor and, if unsatisfied, may need to inform the journal's editors. This will, if her supervisor disagrees,place her in an awkward position and some discussion on ethicalconduct in difficult conditions should be part of this case. This may be the appropriate time for the trainees to review your own University's process. Canadian Universities will have their procedures for reporting and investigating research misconduct available on the web, as a requirement for receiving grants from CIHR and NIH. What is the process followed in your University? Usually the allegation is referred to a third, neutral, party who will collect the information and advise the University of the conclusion. The University, not the individual, has the responsibility to take follow up action.

References and Links:

Tri Council Policy Statement on use of tissue

Canadian Procedure for Addressing Allegations of Non-compliance with Research Policies

British Medical Journal Review

Smith R. Fraud in medical research. BMJ 2001 Note: you must scroll to 2001 to retrieve article

Kondro W. Call for arm's-length national research integrity agency. CMAJ 2007;176(6):749-50.

Council of Science Editors. CSE's white paper on promoting integrity in scientific journal publications.

Hoey, J. Who wrote this paper anyway? The new Vancouver Group statement refines the definition ofauthorship. Can. Med. Assoc. J., 2000, 163: 716-717.

Pan S, Zhang H, Rush J, Eng J et al. High-throughput proteome-screening for biomarker detection. Mol Cell Proteomics 2005, 4:182-90.

Case Developer Michael Reider University of Western Ontario, Reviewers Bob Bortolssi Dalhousie and Thierry Lacaze University of Alberta. Revised March 2007

SELF TEST

Q: Which of the following statement(s) is/are true?

F1: While conducting clinical trials, it is imperative for the researcher to obtain the consent of the participant at some time during the course of the study.

T1: Good Clinical Practice (GCP) is about internationally accepted ethical and scientific principles on how to conduct clinical trials in the developed and developing world.

F2: The definition of "author" is journal-specific; therefore it is important to follow the guidelines of the journal the article will be submitted to in order to name and rank its authors.

F3: All of the above.

F4: None of the above

CASE 8.1: Recruitment Negotiations and Mentoring

PREPARATORY READING

CCHCSP Handbook Chapter 11A: Your 1st appointment

CASE DETAILS:

Peter van der Hoek and Victoria Smith meet during graduate studies at Harvard University through a mutual acquaintance, Marjan de Jong, Peter's cousin and Victoria's friend from Manitoba. Theysoon discover they share common interests, both academic and personal. They become a couple and decide to return to Canada or the Netherlands together to pursue their careers, hobbies and starting a family. Both want a career at an academic centre. They also recognize that they will need to be flexible since finding two academic positions in the same city is not always easy.

Peteris from the Netherlands and completed his PhD at the departmentof Neuroscience at Erasmus MC in Rotterdam. He will soon complete his post-doctoral studies in neuroscience at Harvard where heis doing outstanding research on cerebral palsy. While doing his post-doc, he works part-time as a teaching assistant at the Boston Neurological Institute. Peter also has a clinical interest in the management of cerebral palsy. Ideally, he would like an academic appointment with a cross-appointment to a pediatric clinical facility.

Victoria is from Moose Jaw, Canada. She completedPediatric training in Winnipeg and is doing a research fellowship in pediatric endocrinology at the Boston Children's Hospital.Her studies at Harvard, where she has learned molecular biological techniques, can be described as "cutting edge." She is also a very competent clinician, with excellent experience from the Boston Children's Hospital.

Victoria and Peter update their CVs and write to several Universities in Canada and the Netherlands and are delighted when Montreal and Amsterdam show interest. Peter is interviewed in Amsterdam by several researchers and clinicians in Physiotherapy and Neuroscience, and meets the heads of each department as well as the dean of the Faculty of Health Professions. Victoria accompanies Peter to Amsterdam and is interviewed by clinicians and the head of the Department. Victoria and Peter both visit Montreal where Peter meets members of the Department of Physio therapy and Victoria meets clinicians in Pediatricand Endocrinology. Both also meet their respective department heads and the deans of the Faculty of Medicine and Allied Health.

Both scientists are offered a position. The terms are outlined in letters of offer that each receives (see Letter A [Peter] andLetter B [Victoria] below). The departments have different resources and policies specific to their professions. Some aspects of the offers are appealing and others disappointing. Clearly, itwill not be an easy decision; some compromises will need to be made.

Learning Objectives:

1. To understand the process for recruitment to an academic clinical department.
2. To identify criteria to help you make a career decision.

3. To develop skills in contract negotiation.

Questions:

Take on the role of Victoria or Peter whenyou review the questions below and assume that Peter and Victoria are now a couple. Using the worksheets you prepared for Case 2 on scholarship, teaching, and clinical services, identify the strengths and weaknesses of the offer to you (i.e. to Victoria or Peter). Recognizing that some compromise may be needed in one area or another, what is your "bottom line" in clinical, research, and teaching expectations?

1. Which conditions do you need to clarify when you meet the department head?
2. Can you clarify these items using your own university's policy statements available on the web? (e.g.: What is covered by moving expenses offered by your university?)
3. What are the key issues that present a problem for you?
4. How will you negotiate with the department head?

Case Developers: Robert Bortolussi, Dalhousie University and Richard Keijzer Erasmus MC. Revised July, 2009.

Details of this, and other case scenarios, are entirely fictional. Names of individuals, cities, hospitals, universities and any other identifiers have no relationship to the situations described

COACHES CORNER

Learning Objectives:

The major objective here is to understand the perspective of both the applicant and the new boss in seekingand academic appointment.

1. To understand the process for recruitment to an academic clinical department.
2. To identify criteria tohelp you make a career decision.
3. To develop skills in contract negotiation.

Questions:

1. Which conditions do you need to clarify when you meet the department head?
2. Can you clarify these items using your own university's policy statements available on the web? (e.g.: What is covered by moving expenses offered by your university?)
3. What are the key issues that present a problem for you?
4. How will you negotiate with the department head?

Experts to invite:

Every university will have its own employment criteria and confirmation process. It is important that you point this out while you use your own university as an example of the process. Please ask the visiting experts to review these aspects in advance. We suggest inviting three guests who are recognized in your Centre for expertise in these issues.

1. The head of the Department of Pediatrics. This person can review criteria for hiring, theprocess for offering an appointment at the university and areasof relative flexibility in negotiating a contract.

2. The head of a non-medical health department at your university (e.g. physiotherapy). This person can review criteria for hiring, process and areas of relative flexibility in negotiating a contract. Theuniversity may have some relevant policies posted on its web oryou may be able to provide a copy at the meeting with trainees.

3. A person who has recently been recruited and received an appointment at the university. This person can provide some anecdotal comment and perhaps add to the debate.

Case Overview and Suggestions:

Peter and Victoria are applying as a couple to two different departments at the same university. They discover strengths and weaknesses in each department. The decision will not be easy. After discussion with the department heads, Peter and Victoria are both offered a position. The terms are outlined in letters of offer that each receives (linked for easy access to those who are registered in the program).

This case usually brings up some lively discussion. Many trainees are na‹ve to the issues that they will need to deal with. The department head may be reticent about discussing the issues, since they may have different resources and policies than the situation outlined in the case. Itmay prove best to "neutralize" the situation by treating the issues in a generic manner to make department heads more open to discussion.

Peter and Victoria find some aspects of the offers appealing and others disappointing. Overall Pierre has a very attractive offer compared to Victoria. Clearly, some compromises will be needed as a couple if they are unsuccessful in negotiating a better contract for Victoria.

Encourage the trainees to identify with one or the other of the two applicants and to discuss the merits of the applicant and try to improve on the situation that is offered. Consider asking one to become the "passionate" spokesperson for Peter and another for Victoria. See if this will ignite some friendly fireworks! One aspect that should be brought out in discussion is which things may be flexible and which are non negotiable in the offer at your university.

Peter and Victoria should develop strategies for their negotiation. How might they build from the eagerness of one department head to recruit Peter? Can they ask the two department heads to discuss the proposals? This might give one a chance to put pressure on the other. What suggestions do the department heads have? What experiencedid the new recruit have at other universities?

References:

Carnegie Mellon Career Centre: Negotiating a Job Offer.

Case Developer Robert Bortolussi, Dalhousie University, Revised August 2009

SELF TEST

Q: Which of the following statement(s) is/are true?

F1: To be competitive for national peer-review grants, a well-trained clinician-scientist should spend 20 to 40% of his/her time on their research.

F2: Training in a top academic centre is the only factor determining the career success of a clinician scientist.

F3: Checking advertisements in newspapers is the best way to find an academic position; journals and research conventions are less helpful.

F4: All of the above.

T1: . None of the above.

Additional Resources

Letter A

Letter B

CCHCSP CASE STUDIES

CASE 8.2: Recruitment Negotiations and Mentoring part 2

CASE DETAILS:

Victoria is quite disappointed to see the difference between her recruitment package and Peter's and wonders if ths should be considered discriminatory, given her track record.

Question:

How should Victoria inquite about possible gender inequity?

Learning objective:

Understand the processes that may be followed if one suspects they have suffered from gender inequity.

References:

http://www.mcgill.ca/senate-subcommittee-women/

Ivey E. Gender Differences among Contingent Faculty: A Literature Review. AWIS Sloan Report, 2005.

http://www.awis.affiniscape.com/associations/9417/files/AWIS%20Sloan%20report%20FINAL%20plus%20Appendix%20A.pdf

Ceci SJ, Williams WM. Understanding current causes of women's underrepresentation in science. PNAS 2011; 108: 3157-62 (Open Access)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3044353/pdf/pnas.201014871.pdf

LariviŠre V, Vignola-Gagn, E, Villeneuve C, G,linas P, Gingras Y. Sex differences in research funding, productivity and impact: an analysis of Qu,bec university professors. Scientometrics 2011; 87: 483-98

http://www.springerlink.com/content/h864v55444630925/fulltext.pdf

Case Developers: Dr. Caroline Quach, McGill University; Dr. Cheri Deal, University of Montreal; Dr. Robert Bortolussi , Dalhousie University

Revised January 2015 (EC), Revised January 2015

COACHES CORNER

Part 1: Gender Inequity

Previous studies (see references) have shown that resources are usually not equally distributed between men and women in health sciences, where men tend to have more resources (access to lab), peter positions (tenured), more time for research, and asked less to get involved in teaching and administration. However, these inequities are seldom seen upon recruitment (unlike in this case) - studies have shown that women arenot disadvantaged upon recruitment by offers made but rather bybiological and societal constraints that make them choose, albeit freely, tracks that are less likely to be tenured and research-oriented. Recent audit showed that fellowships and PhD awards were given equally to men and women.

Most universities have processes to deal with suspected gender inequity.

Case Developers: Dr. Caroline Quach, McGill University; Dr. Cheri Deal, Universityof Montreal; Dr. Robert Bortolussi, Dalhousie University

CASE 8.3: Recruitment Negotiations and Mentoring part 3

CASE DETAILS:

Addendum to Case 8: Part 2: Life-Work Balance

Victoria is convinced that she should get a better offer and while Peter loves the position offered to him, Victoria decides to apply to the another pediatric centre in the same city. She succeeds in getting a start-up package and an offer similar to Peter's.

Victoria is offered a position as a clinician scientist with a tenured track at another university. She is successful in obtaining a salary award and is soon working on submitting an operating grant.

As both Victoria and Peter are starting to settle in Montreal, they wonder about starting a family. Peter is ready and does not want to delay. He feels they should try to have two (or more) children. He grew up in a one-child household and wants to avoid some of the things he experienced. He is convinced that he will be able to juggle family and career. Victoria ponders. She wants to have children but doesn't want to fall behind on the "cutting edge" of science by taking one or two maternity leaves. She worries that motherhood will impact on her research career and productivity.

Questions:

1. Will the granting agencies make any allowances for a maternity/paternity leaves from active research?
2. Will Victoria need to choose between having a family, being a clinician, or being a clinician scientist?
3. Should Victoria and Peter wait until later in their career before even considering a family?
4. What type of life-work balance can they look forward to?
5. This scenario may happen to any of us: how can we reconcile the challenges of having a successful career and a family?

Learning objectives:

1. Discuss the impact of parenthood on research careers and avenues that can be taken to survive both!
2. Discuss how career paths may differ for men and women. Academic reasons? Other reasons?

References:

Ivey E. Gender Differences among Contingent Faculty: A Literature Review. AWIS Sloan Report, 2005

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Case Developers: Dr. Caroline Quach, McGill University; Dr. Cheri Deal, University of Montreal; Dr. Robert Bortolussi , Dalhousie University

CASE 9: Relocating to Montreal

PREPARATORY READING

CCHCSP Handbook Chapter 7: Basic Biology

CCHCSP Handbook Chapter 10: Setting Up Research Program

CCHCSP Handbook Chapter 11B: Your Academic Home: Mentoring

CCHCSP Handbook Chapter 12: Person to Person Management

CCHCSP Handbook Chapter 13: Managing Time

CASE DETAILS:

Peter van der Hoek and Victoria Smith have chosen McGill University in Montreal for their first academic appointment (see case 8). Although Victoria's offer is not quite everything she wanted, Peter is delighted he'll have lots of protected time for research, which the institution in the Netherlands did not offer him.

In Montreal, Peter meets his new colleagues in the Department of Physiotherapy. Many of them have requests: Would he like to join the journal club? Present a seminar on his research? Join a study group? Give a lecture to the senior students on the management of cerebral palsy? Substitute as a preceptor on an examination for a colleague who is ill? Join the academic planning committee?

After a long chat with Victoria, he decides to think carefully before committing himself.

Since cerebral palsy (CP) is hischief interest, Peter begins to interact with Dr. Garth Graves,a geneticist studying an inherited type of CP found in a remotepart of Eastern Quebec. Garth is a biologist and uses PCR technology for gene analysis. Garth has discovered that many people with a certain genetic variant of Lissencephaly (www.lissencephaly.org.uk) have genetic ancestry in Kamuraska, Quebec. Garth's clinical collaborator has unexpectedly resigned her university post, so he asks Peter to write a CIHR grant dealing with characterizing the clinical phenotype.

Questions:

1. What are the criteria that Peter could use to decide which offers to accept or decline?
2. What are "genes" and how do they determine protein production?
3. What kind of technique is PCR? How does one perform a PCR?

The Sequel

After carefully studying the protocol, checking that it hasfull REB approval (Victoria's suggestion), and that his department head supports him, Peter accepts Garth's offer.

The initial arrangement with Garth works out extremely well, but after a month Peter realizes that he needs a research assistant to record data, instruct subjects on how to perform the tests, and set up and

equilibrate equipment. Garth agrees and gives him the responsibility to post the position and to select, hire, and fire candidates.

Learning Objectives:

1. To understand the tools of another discipline and how to interact with researchers in a different discipline.
2. To appreciate the need for mentors and mentoring in career development.
3. To appreciate responsibilities and requirementsfor hiring research assistants.

Questions:

1. What are the important issues in each of these steps?
    - Advertising: How should the ad read and where should it be advertised?
    - Selection: What questions are useful to ask interviewees and referees?
    - Hiring: What are the terms of employment? What is the category?
    - Evaluation: What are the criteria and how are they made clear?
    - Firing:What are the criteria and how does one best document to avoid problems?
2. What process is followed at your own institution to hire a grant-paid technician?

References:

Howard Hughes Foundation

Sackett, D. On thedeterminants of academic success as a clinician scientist. ClinInvest Med 2001 24:94-100.

Case developers: Richard Keijzer Erasmus MC, Rotterdam and Robert Bortolussi, Dalhousie University. Revised August 2009.

COACHES CORNER

Learning Objectives:

The overall objective here is about understanding the issues and possible approaches for dealing with a new environment. Every institution will have a different culture and different regulations, thus gaining local expertise at the meeting will be very important.

1. To understand the issues that may impact a new researcher in establishing themselves in a new environment.
2. To develop priorities and a focus in their activities and interaction with others.
3. To understand responsibilities and policies regarding employee employer relations.
4. To understand the basic principles of PCR and how to interact with researchers in a different discipline.

Questions:

1. What are the criteria that Peter could use to decide which offers to accept or decline?

2. What are "genes" and how do they determine protein production?
3. What kind of technique is PCR? How does one perform a PCR?

Final Questions:

1. What are the important issues in each of these steps?
    a. Advertising: How should the ad read and where should it be advertised?
    b. Selection: What questions are useful to ask interviewees and referees?
    c. Hiring: What are the terms of employment? What is the category?
    d. Evaluation: What are the criteria and how are they made clear?
    e. Firing: What are the criteria and how does one best document to avoid problems?
2. What process is followed at your own institution to hire a grant-paid technician?

Experts to invite:

The objectives fall under the Time Management, Mentoring and Basic Research modules. Please consult this in advance. We suggest inviting two guests who are recognized in your Centre for expertise in these issues.

1. A Human Resource expert who knows the regulations in your institution. (When we did this in Halifax, the HR Director of our hospital joined us. It was an educational experience at every level.)
2. A second person who is a time management “expert” and can give some fatherly (or motherly) advise on when and how to say NO. The interpersonal situations that may arise in your Centre that may distract one from their primary focus are all somewhat different. Thus only you can judge who this person should be.
3. If there is a basic scientist in the Clinician Scientist group, I’d ask that person to take a leadership role. If no such person is available, ask one of the researchers in your institution.

Case Overview:

This is a case, which focuses on the interpersonal relations and responsibilities. The first part of the case illustrates some of the situations that will always occur. It is a good idea to prepare Clinician Scientists for this and stop them from falling into a trap of overtaxing their time.

The second aspect deals with the process of finding and employing personnel in their lab. The innocence of their youth will probably not prepare them for the problems that can ensue from a wrong decision in hiring. Prime in the set up is to be sure they are not trapped by the system that will make it difficult to fire an inappropriate employee.

References:

Howard Hughes Foundation

Sackett, D. On the determinants of academic success as a clinician scientist. Clin Invest Med 2001 24:94-100.

Case developers: Richard Keijzer Erasmus MC, Rotterdam and Robert Bortolussi, Dalhousie University. Revised August 2009.

SELF TEST

Q: Which of the following statement(s) is/are true?

F1: The Polymerase Chain Reaction (PCR) is a molecular technique that can be used to detect proteins in any biological sample.

F2: . In an academic setting, a mentor/mentee relationship is a unidirectional relationship in which a senior and knowledgeable person (the mentor) guides a scientist-in-the-making (the mentee).

F3: In order to review a research protocol, each member of Research Ethics Committee must have a professional and specialized background to understand the scientific terminology of the field of study.

F4: All of the above.

T1: None of the above.

CCHCSP CASE STUDIES

CASE 10: Discovery in Montreal

PREPARATORY READING

CCHCSP Handbook Chapter 2: Conflict of Interest & Integrity

CCHCSP Handbook Chapter 3: Regulating Research

CCHCSP Handbook Chapter 8: Good Clinical Practice

CCHCSP Handbook Chapter 9: Commercialization

CCHCSP Handbook Chapter 10: Setting Up Research Progr

CASE DETAILS:

After difficulties in Boston are resolved, Victoria joins Peter in Montreal. Soon she is approached by Chris Jones, a neonatologist and researcher at McGill University. Chris has developed a synthetic surfactant to prevent neonatal respiratory distress syndrome (RDS), the leading cause of death in premature babies. Hissurfactant is composed of lipids and a synthetic peptide which resembles surfactant protein C (SP-C), one of the most importantcomponents of natural surfactant. Chris asks Victoria to analyze peptide bonding to the synthetic surfactant. She agrees and signs a confidentiality agreement that gives information on how treatment with such preparations could reduce the risks of conventional animal-derived surfactant.

Chris trademarks his new surfactant “SyntSurf”. He has found a biotech company, Neovation, to conduct clinical trials and market the product. He is also applying for a patent with McGill University as partner. A small pilotstudy of 25 premature infants with RDS suggests that SyntSurf may give dramatic and long-lasting improvement in oxygenation, similar to that observed with natural surfactants in a historical control group.

Neovation gets financial support from Acme Pharmaceutical to conduct a large, double-blind, randomized, and controlled trial to compare SyntSurf to the surfactant currently used. They will have 100 babies enrolled from NICU and 300 babies at10 other sites. Standard operating procedures are written to ensure that all sites will adhere to Good Clinical Practice Standards. Chris also sets up a data and safety monitoring board (DSMB), consisting of one researcher from Neovation and four PIs fromcooperating sites, two of whom have previously consulted for Neovation. All research ethics committees of participating sites are asked to give approval.

After six months, 60 patients have been enrolled, 20 at a different site (D) from Chris’s NICU. Of these 20 patients, 5 (25%) have a pneumothorax. Two of these five patients eventually develop severe respiratory failure and die. All are reported as serious adverse events (SAE) to the site D research ethics committee and Health Canada. With these events, the trial coordinator convenes the first meeting of the DSMB. TheDSMB reviews the overall study adverse events without breaking the randomization code. There are six pneumothoraces among 29 patients (21%) in one of the two groups compared to 3

of 31 patients (10%) in the other group (p > 0.5). The DSMB concludes that the investigational surfactant is probably not the cause of pneumothorax, since pneumothorax is a frequent complication of RDS. The trial is allowed to continue.

The DSMB meets three months later. By then there are 10 pneumothoraces among 45 patients (22%) in one group and 4 of 47 (9%) in the other group. The decision to break the code is taken and the high rate of pneumothorax is found with the SyntSurf treatment group. The DSMB thus advises that the trial be stopped.

Learning Objectives:

1. To understand the legal implication of a confidentiality contract agreement and theissues around conflict of interest and a confidential disclosure agreement.
2. To understand the principles and responsibilities of researchers in GCP.
3. To understand adverse event reports as a means of ensuring patient safety.
4. To understand the role of the DSMB in evaluating trial data.

Questions:

1. What is a confidentiality contract agreement and what are Victoria's obligations?
2. What restrictions, if any, are imposed at your university for filing apatent?
3. What is a trademark and what are the advantages gained from licensing the trademark "SyntSurf"?
4. What is GCP and what are the responsibilities of researchers in GCP?
5. If you were on theREB what questions would you want addressed?
6. How should the DSMB be structured? What are its responsibilities?
7. Will any of the participants, the PI (Chris), collaborators (e.g. Victoria), sponsors (McGill U, Acme Pharmaceuticals), the research ethics committee, or the DSMB members be held legally accountable for the study's unfortunate outcome?

References:

US Department of Health and Human Services. FDA. Guidance for Clinical Trial Sponsors. On the Establishment and Operation of Clinical Trial Data Monitoring Committees. Draft guidance

Murff H. GCRC, Vanderbilt University Medical Center. Data and Safety Monitoring in Clinical Trials.

Morse MA, RM Califf, and J Sugarman.Monitoring and ensuring safety during clinical research. JAMA 2001 285:1201-5.

Slutsky AS, Lavery JV. Data safety and monitoring boards. NEJM 2004 350:1143-7.

Case developer: Thierry Lacaze, University of Alberta. Reviewers: Bob Bortolussi, Janet Curran, and Marie-Claude Gregoire (Dalhousie University). Revised August2009.

COACHES CORNER

Learning Objectives:

1. To understand the legal implication of a confidentiality contract agreement and the issues around conflict of interest and a confidential disclosure agreement.
2. To understand the principles and responsibilities of researchers in GCP.
3. To understand adverse event reports as a means of ensuring patient safety.
4. To understand the role of the DSMB in evaluating trial data.

Questions:

1. What is a confidentiality contract agreement and what are Victoria's obligations?
2. What restrictions, if any, are imposed at your university for filing a patent?
3. What is a trademark and what are the advantages gained from licensing the trademark "SyntSurf"?
4. What is GCP and what are the responsibilities of researchers in GCP?
5. If you were on the REB what questions would you want addressed?
6. How should the DSMB be structured? What are its responsibilities?
7. Will any of the participants, the PI (Chris), collaborators (e.g. Victoria), sponsors (McGill U, Acme Pharmaceuticals), the research ethics committee, or the DSMB members be held legally accountable for the study's unfortunate outcome?

Experts to invite:

An expert in Intellectual Property and Patent Policy at your Institution Research Service Office.

Either a DSMB expert that belongs to your HREB or a Principal Investigator who has been previously involved in the setting of a DSMB for a large multicentre randomized trial.

Case Overview:

What is a Data Safety Monitoring Board (DSMB)?

A DSMB is a group of experts who meet periodically to review accumulating data gathered from participants in clinical trials with the purpose of protecting

- the safety of the study subjects
- the scientific integrity of the study
- the validity of study results

In addition, if important results are evident before the scheduled end of the study, interim analyses can be conducted and those results can be reported more quickly than otherwise would occur.

Composition

A DSMB is made up of people external to the study group. The members of the Board:

- are independent of the sponsor of the study and of the manufacturer of any product that is being evaluated

- have no financial interest in whether the study they are monitoring continues
- receive no scientific recognition in the form of publications or promotions from the results
- have relevant expertise (clinical, statistical, and/or study design)
- may include an ethicist or patient advocate

Who appoints the Board?

This varies depending on the sponsor, the phase of the clinical trial, risk to participants, complexity of study design, single vs. multicenter, and other factors.

- In early phase trials sponsored by the NIH and those that are small and have single centers, the principal investigator typically appoints the members of the board.
- For multicenter phase II b and III trials supported by the NIH, the funding institute usually appoints the Board members.
- For industry-appointed trials, the patterns vary. Some companies appoint their own boards (called Data Monitoring Committees). Others give the responsibility for appointing members to a data center, coordinating center, or Clinical Research Organization (CRO).

Monitoring Board Functions: (The following example is from the NIH in USA.)

The initial responsibility of the DSMB will be to approve the initiation of this clinical trial. After this approval, and at periodic intervals (to be determined) during the course of the trial, the DSMB responsibilities are to:

- review the protocol, consent documents and planed data safety and monitoring;
- evaluate the progress of the trial, including periodic assessments of data quality and timeliness, participant recruitment, accrual and retention, participant risk
- consider factors external to the study when relevant information becomes available, such as scientific or therapeutic developments
- review performance, assist resolution of problems reported by the PI;
- protect the safety of the study participants;
- report on the safety and progress of the trial;
- make recommendations to the sponsor, the PI, and, the FDA concerning continuation, termination or other modifications of the trial;
- if needed, conduct interim analysis of efficacy in accordance with stopping rules
- ensure the confidentiality of the trial data and the results of monitoring

Decisions to be made by the DSMB

- Recommend that the trial continue as is.
- Recommend that the trial protocol be modified in any number of ways.
- Recommend that the study stop early.
- Recommend that the study be extended.

Reports Prepared by the DSMB and Sent to Investigators:

Reports of decisions made by the DSMB should be sent to the investigators who must submit those reports to the IRB and GCRC.

References:

US Department of Health and Human Services. FDA. Guidance for Clinical Trial Sponsors. On the Establishment and Operation of Clinical Trial Data Monitoring Committees. Draft guidance.

Murff H. GCRC, Vanderbilt University Medical Center. Data and Safety Monitoring in Clinical Trials.

Morse MA, RM Califf, and J Sugarman. Monitoring and ensuring safety during clinical research. JAMA 2001 285:1201-5.

Slutsky AS, Lavery JV. Data safety and monitoring boards. NEJM 2004 350:1143-7.

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C. Weijer, "Continuing Review of Research Approved by Canadian Research Ethics Boards" CMAJ 2001; 164:1305.

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Gold JL. Watching the Watchdogs: Negligence, Liability, and Research Ethics Boards.Health Law J 2003; 11:153-176.

Glass KC, Lemmens, T. Research Involving Humans, in Downie, J, Caulfield T, Flood C. Canadian Health Law and Policy, 2nd ed. (Butterworths: Markham, 2002) 459-500 (particularly, 493-497).

Case developer: Thierry Lacaze, University of Alberta.

Reviewers: Bob Bortolussi, Janet Curran, and Marie-Claude Gregoire (Dalhousie University).

Revised August 2009.

SELF TEST

Q: Which of the following statements is(are) correct?

T1: The researcher must ensure that all requirements for obtaining informed consent are met.

F1: The researcher must ensure that all serious adverse events are reported to the sponsor and that the coordinator for the study appreciates that it is their responsibility to report to the Research Ethics Committee.

F2: The data and safety monitoring board (DSMB) may only analyze data and safety aspects of a study after all subjects have been enrolled.

F3: All of the above.

F4: None of the above

CCHCSP CASE STUDIES

CASE 11: Negotiating a Community Research Project

PREPARATORY READING

CCHCSP Handbook Chapter 1: Basics in Research Ethics

CCHCSP Handbook Chapter 5: Culture, Religion and Ethnicity

CCHCSP Handbook Chapter 6B: Research Design

CCHCSP Handbook Chapter 16: Writing a research grant

CASE DETAILS:

One day, Peter is introduced to Susan Nosenblum, an old colleague of Peter's fianc,e, Victoria. Susan works with a pediatric group that has responsibility for delivering services to First Nations communities in the James Bay region of Quebec. The Grand Council of the Cree was concerned about renal disease in their communities and offered to fund school-based urinalysis and blood-pressure screening. Susan has visited Chisasibi, the largest of nine villages on the eastern shore of James Bay. About 800 children and adolescents from around the district attend the Cree Council-run school in this village.

Susan found little community interest in renal disease. The school principal and the teachers kept bringing the conversation back to their concerns about the poor eating and exercise habits of their students. The staff of the school felt the screening program needed something more immediate to offer for obesity and fitness.

Susan asks Peter to help develop a grant proposal to enhance the physical activity of the students. Peter becomes enthusiastic and agrees to assist with a study on activity and obesity. When he looks into this, he finds that little is known about ways to change behaviour and attitudes in this cultural context. Peter calls the school principal. During his conversation he finds the principal wants practical help to combat the obesity problem and is not particularly interested in taking part in a research project, although he doesn't specifically rule it out. Peter also discovers that Susan has already sent plans to the teachers for a randomized controlled trial of a pedometer based competitive physical activity program for one group of children versus no intervention for the control group.

A few weeks later, Peter and Susan visit the school together. They meet the teachers and immediately feel the tension in the room. The principal tells them that they are upset about the proposed experiment because it treats the two groups of children unequally. While he values developing a relationship with Susan and Peter, many of his teachers and some parents think that he should no longer co-operate on any project.

Questions:

1. What went wrong here?
2. How would you handle this situation? Consider the following:
    - What are the community needs in this situation?

- What are your needs in this situation?
- What are your research colleagues? needs in this situation?

The Sequel

Peter and Susan make major changes to their grant proposal plans and have a number of meetings with school and other community representatives over the next six months. They come to an agreement on a type of research program that is acceptable in the school setting. Peter and Susan refine the research hypothesis and grant proposal to reflect the community values.

Learning Objectives:

1. To understand that research may be perceived by the researchers very differently from how it is perceived by communities and experimental subjects.
2. To understand the principles of effective negotiation where parties differ in cultural background.
3. To understand the place for comparative research that involves multiple intervention options, but no placebo arm (e.g. childhood cancer clinical research).

References:

Community Based Collaborative Research

Leung MW, Yen IH, and Minkler M. Community based research: A promising approach for increasing epidemiology's relevance in the 21st century.

Weiss S. Negotiating with "Romans" Parts One and Two. Sloan Management Review 1994 Winter:51;61, Spring:85-100.

Firehock K. Protocols and Guidelines for Ethical and Effective Research of Community Based Collaborative Processes.

Case developers: Malcolm Ogborn University of Manatoba, Robert Bortolussi, Dalhousie University and Richard Keijzer Erasmus MC, Rotterdam.

Revised August 2009.

COACHES CORNER

Learning Objectives:

1. To understand that perception of research by researchers may be very different to that of communities and experimental subjects.
2. To understand the principles of effective negotiation where parties differ in cultural background.
3. To understand the place for comparative research that involves multipleintervention options, but no placebo arm (e.g. childhood cancerclinical research).

Questions:

1. What went wrong here?
2. How would you handle this situation? Consider the following:
3. What are the community needs in this situation?
4. What are your needs in this situation?
5. What are your research colleagues? needs in this situation?

Experts to invite:

A person familiar and sensitive to issues on interaction with minority groups should be recruited. Such an "expert" may be hard to find, but this exercise can be accomplished by senior clinical researchers who have similar experiences and are prepared to take on a role as coach to facilitate discussion.

Case Overview:

Starting any sort of community projectmust be based upon building relationships in the community. In this case Susan just barged in with her definition of a researchproject, without any understanding of the values and ideas of the community. The use of control groups may be perceived as withholding benefit and is a very sensitive issue in First Nations communities where unethical research of this nature has occurred (e.g. non treatment of epidemic streptococcal infection in Red Lake Minnesota to permit study of the natural history of glomerulonephritis).

Suggestions:

Divide the group before your session, one half taking the role of teachers and community members and the other half the researchers. Each group must come up with ideas on how the research is to be conducted. Then use a group session to negotiate the design of the study. Encourage them to be creative and get into the role. There is no right answer here, some groups may do a deal, others won't; that's life!

The coach should lead the group through the paradigm of building relationships, setting objectives for the research, developing methodology that is acceptable, establishing a framework that allows the community to participate in the management of the project, and determining how progress and results are reported to the community.

Susan and Peter must apologize and take the offending proposal off the table. What must follow is conversation about what the community deems acceptable for research, for example, they might be willing to participate in a study that compares two different intervention programs to see which "works" or "suits this community" better. They may want to local training in research methodsand skill development, and have students who could be role models for their children come to the community.

The objective is topreserve the relationship with the community so that ongoing effective clinical care can be delivered. Although the researcher needs credible research outcomes for grant support, they may have to give up the traditional control over a project when workingin a community. This means that if no agreement on an aspect ofthe research design can be reached, this aspect may need to be cut, and another approach developed. Can they recognize that while that power is nice to have, it may not be a "need", i.e. lifecan go on without it.

References:

- Community Based Collaborative Research.
- Leung MW, Yen IH, and MinklerM. Community based research: A promising approach for increasing epidemiology's relevance in the 21st century.
- Weiss S. Negotiating with "Romans" Parts One and Two. Sloan Management Review 1994 Winter:51-61, Spring:85-100.
- Firehock K. Protocols and Guidelines for Ethical and Effective Research of Community Based Collaborative Processes.

Case developers: Malcolm Ogborn, University of Northern British Columbia, Robert Bortolussi, Dalhousie University and Richard Keijzer Erasmus MC, Rotterdam.

Revised August 2009.

SELF TEST

Q: Which of the following is THE MOST important factor in developing a successful community research project? (Admittedly, this is quite subjective

T: Develop supportive relationship with the appropriate leaders

F1: Develop realistic and clear expectations

F2: Define your role and responsibility and that of the community.

F3: Understand the original treaty agreement and its relationship to federal politics

CCHCSP CASE STUDIES

CASE 12: Implementing Change

PREPARATORY READING

CCHCSP Handbook Chapter 15B: Writing a report

CCHCSP Handbook Chapter 17: Policy Research

CCHCSP Handbook Chapter 18: Knowledge Translation

CASE DETAILS:

Peter returns to Montreal after one more visit to Chisasibi in the middle of a late spring snow storm. Both he and Susan are now enthusiastic about pursuing further research in the community. They have listened to the village elders and community members and feel they have their support. After detailed discussion with the community, the question formulated has shifted to focus on obesity: Which of two voluntary interventions (exercise activity vs. dietary) will be most effective for the long-term benefit of the people. The design of the study takes into account the wishes of the community. There will not be a control (non-participant) group. Instead, they will use pre-intervention data and trend analysis as a baseline.

Peter and Susan realize that the research will only be sustained if the community council changes policy and resources are found to build new recreational facilities to encourage lifestyle change. Thus they set out to involve policymakers in the design and execution of the research. They hope that by garnering the support and favor of the band council, they can influence local policy relating to obesity reduction. They have good reason to believe that their findings would be implemented judging from the enthusiasm and concern expressed by the council.

Their pilot research project is highly successful. In fact, all of the key indicators show that meaningful changes have occurred as a result the interventions. They decide to describe their findings in a health policy research journal and to write a grant for a much larger project involving several communities. The strategies used at Chisasibi would be used to test if they are generalizable to communities with different cultural backgrounds and if they will be sustained.

But when Peter and Susan contact the chief six months after the project has ended, they are disappointed to find that no progress has been made in implementing the recommendations of their pilot research. In fact, the chief says that he and the elders were not even able to engage government bureaucrats to obtain funding.

Questions:

1. What went wrong?
2. How might this situation be corrected?

The Sequel

Peter and Susan seek advice again from their mentor who had convinced them to work with the band council early in the project. He tells them that they were wise to involve elders early in their research to ensure a) that their questions were relevant, b) cooperation with data collection, and c) that the recommendations could be meaningfully tailored to the community. What is necessary at this stage is to involve the right government bureaucrats at the right time. As a result of the discussion, they decide to take a different approach.

Peter's mentor also draws this attention to new requirements for the research grant competition they are applying to. Beginning with the next competition, researchers will need to include a knowledge translation (KT) plan and corresponding KT budget with their proposals for research funding. The Band Council also expects them to prepare a report for them when the project is competed.

Peter has been working on drafts of his research proposal but is hazy on the KT plan requirement. He begins to wonder if there will ever be an end to the challenges in securing research funding. Peter's background has not prepared him for this type of request. In desperation, he contacts his mentor for advice on preparing a KT plan for the proposal. He also asks what he should do to develop a report at the end of the project.

Learning Objectives:

1. To understand that perception of research by researchers may be very different to that of policymakers and planners.
2. To understand how research and health policy interests can compliment each other for a greater long-term benefit.
3. To understand when and how to engage the community, health policymakers,administrative bureaucrats.
4. To understand the strategies for effective knowledge translation and how to incorporate a KT plan and budget in a research proposal.
5. To understand what will be expected in preparing a report for an organization that is not involved in research.

Questions and Tasks:

1. What levels of government bureaucratic machinery will be involved?
    a. to construct recreational facilities?
    b. to market lifestyle change?
    c. to institute school activity and breakfast program change?
2. KT Writing Exercise: As an exercise, write a plain language summary (one page maximum) of your own research.
    a. For which audiences does your proposed research have relevance?
    b. For the primary audience, describe how and when you will engage them and develop a plan for the translation of this research to this audience(s).
3. Write a KT plan for your project (one to one and a half pages in length)
    a. Develop a corresponding budget for this KT plan.

4. Group Exercise: The Dinner Party. Pretend you are attending a dinner party with non-research friends. The person next to you asks what work you do, everyone turns to listen.
    a. Using simple language, describe what you do in a way that will incite interest from your listeners.
    b. Describe why your research is important.
    c. Describe the potential impacts of your research, for the following areas:
        a. future research
        b. clinical practice, service delivery
        c. health policy, system or organizational changes
        d. health outcomes
5. Develop an outline for a report that will be suitable for the Band.

Case developers: Robert Bortolussi, Dalhousie University and Melanie Barwick, Sick Children's Hospital, Toronto.

Reviewer: Jeff Wright, Toronto.

Revised August 2009.

Details of this, and other case scenarios, are entirely fictional. Names of individuals, cities, hospitals, universities and any other identifiers have no relationship to the situations described.

COACHES CORNER

Learning Objectives:

1. To understand that perception of research by researchers may be very different to that of policymakers and planners.
2. To understand how research and health policy interests can compliment each other for a greater long-term benefit.
3. To understand when and how to engage the community, health policymakers, administrative bureaucrats.
4. To understand the strategies for effective knowledge translation and how to incorporate a KT plan and budget in a research proposal

Questions:

Initially

1. What went wrong?
2. How might this situation be corrected?

Final

stions and Tasks:

1. What levels of government bureaucratic machinery will be involved?
    a. to construct recreational facilities?
    b. to market lifestyle change?

   c. to institute school activity and breakfast program change?
2. KT Writing Exercise: As an exercise, write a plain language summary (one page maximum) of your own research.
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   b. For the primary audience, describe how and when you will engage them and develop a plan for the translation of this research to this audience(s).
3. Write a KT plan for your project (one to one and a half pages in length)
   a. Develop a corresponding budget for this KT plan.
4. Group Exercise: The Dinner Party. Pretend you are attending a dinner party with non-research friends. The person next to you asks what work you do, everyone turns to listen.
   a. Using simple language, describe what you do in a way that will incite interest from your listeners.
   b. Describe why your research is important.
   c. Describe the potential impacts of your research, for the following areas:
      e. future research
      f. clinical practice, service delivery
      g. health policy, system or organizational changes
      h. health outcomes
5. Develop an outline for a report that will be suitable for the Band.

Experts to invite:

A person familiar with government programs and processes. Ideally, someone from the ministry of health who has an academic interest and background.

Someone who has successfully implemented change as a result of research. This might be someone from within or outside of your institution.

Overview:

Peter and Susan thought that by working exclusively with the community, and in particular, by garnering the support and favor of the Band Council, they would be able to influence (through the Council) local policy relating to obesity reduction/amelioration. They had good reason to believe that their findings would be implemented judging from the enthusiasm and concern expressed by the Council and belief that the reserve would by and large be self-governing.

When Peter and Susan contacted the Chief 6 months later, they were very disappointed to find out that no progress had been made at the community level in terms of implementing the results/recommendations of their research. In fact, Council members and elders had been unsuccessful in their efforts to engage government bureaucrats and obtain funding for solutions to the problem.

The questions are then, what went wrong? How can this situation be better managed/corrected?

Answers to Questions:

The researchers were wise to involve Band Council and elders early in their research to ensure: their questions were relevant; cooperation with data collection and interpretation was most optimal; and recommendations could be meaningfully tailored to the community. What was necessary at the

knowledge exchange stage however, for policy decisions particularly as they related to resource attribution was to involve the right government bureaucrats at the right time.

It would be useful to partialize and link each of the recommendations to a level of government having oversight for them.

- Clearly, reserve funding, particularly as it relates to diet and activity to manage chronic obesity, may fall within the purview of both the federal and provincial or state governments.
- Recommendations related to improving activity levels through the construction of recreation buildings might be overseen by Ministries of Sports and Recreation.
- Recommendations relating to strategies and programs to market and communicate a healthy lifestyle among at-risk groups would fall under the provincial or state funding and would be overseen by a Ministry of Health or Health Promotion.
- Recommendations relating to school activity and breakfast programs might fall within the jurisdiction of Ministries of Education at both the provincial/state level and local government levels.

Peter and Susan would be well advised to co-sign a letter with the Chief and to send it to policy directors from each of the Ministries described introducing the research, its benefits, and the need for multiple government level support to meaningfully implement research recommendations. They should also attach their research paper with a very concise and jargon-less executive summary. In the letter, they should ask the Directors to identify a policy advisor from within their department to participate in a teleconference or in-person meeting, facilitated by the researchers, meant to explore the feasibility of implementing the various recommendations and the kind of support and partnering that the reserve might expect from the various levels of government. Based on the initial teleconference, the researchers should be able to quickly assess which Ministries were potentially supportive and which were not.

The researchers should then offer to lead a short-term working group process, involving key members of reserve and supportive Ministries, with a view to creating a business case that could be provided to the supportive Ministries' decision-makers for policy and resource support to implement as many of the recommendations as practical.

Case developers: Robert Bortolussi, Dalhousie University and Melanie Barwick, The Hospital for Sick Children, Toronto.

Reviewer: Jeff Wright, Fanshawe College, London.

Revised August 2009.

SELF TEST

Q: The question that follows is a gift! Eric is at a party, looking at Susan. Susan is looking at Pablo. Eric is married. Pablo is not. Is a married person looking at an unmarried person?

F1: (a) No

F2: (b) cannot be determined

F3: If you thought, "No" or "Can't be determined", is correct, you are among the 80% of people who get it wrong! Hint: Susan can be either married or unmarried. Work through both scenarios.

F4: Keith Stanovich, a U of T psychologist who studies "why smart people do stupid things", says people get it wrong because they're "cognitive misers". They conclude that they don't have enough information rather than make an effort to see it through

T1: The correct answer is, of course, YES! (Check your answer to get a prize).