TrialScribe
Clinical Research News
at University Health Network

Welcome to the March 2014 edition of *TrialScribe*, a bi-monthly e-newsletter designed to inform researchers and trainees about clinical research news and information at UHN. Included in this issue:

We hope that you enjoy reading *TrialScribe*. If you have feedback or questions, all suggestions are welcome at www@uhnresearch.ca.

- Charles Chan, FACP, FRCPC, MD, Vice President, Medical Affairs and Quality, and Christopher J. Paige, PhD, FCAHS, Vice President, Research; March 2014

Research Spotlights

Cancer: Earlier Palliative Care Benefits Patients

The World Health Organization recommends that all terminally ill patients receive palliative care, which is designed to alleviate the suffering of people with life-threatening illnesses, to improve their quality of life and the wellbeing of their family. A recent study, published in the leading medical journal *The Lancet*, shows that the wellbeing of these patients may be improved by changing how and when palliative care is delivered.

Led by Princess Margaret (PM) Cancer Centre Scientist Dr. Camilla Zimmermann, the clinical study enrolled 461 patients diagnosed with terminal cancer who had estimated life expectancies of 6-24 months. One half of the patients received standard cancer care, which typically provides palliative care in the last two months of life. The other half of patients enrolled in the study were provided with early palliative care, including monthly consultations with a physician and nurse, who provided specialized care and support.

After four months, the researchers noted significant improvements in the quality of life of patients participating in the early palliative care program compared to those receiving standard care. Moreover, early palliative care improved the patients' ability to cope with their symptoms and increased their satisfaction with care.

This work was supported by the Canadian Cancer Society, the Ontario Ministry of Health and Long-Term Care and The Princess Margaret Cancer Foundation.

Early palliative care for patients with advanced cancer: a cluster-randomised controlled trial. Zimmermann C, Swami N, Krzyzanowska M, Hannon B, Leighl N, Oza A, Moore M, Rydall A, Rodin G, Tannock I, Donner A, Lo C. The Lancet. *2014 February 19.* [Pubmed abstract]

New Therapeutic Approach to OutSMART Cancer

Mesothelioma is a rare and aggressive form of cancer that develops in the cells that line the lungs and is currently difficult to treat. Exposure to asbestos, a fibrous mineral that was commonly used as building insulation in Canada until the 1980s, is the main cause of mesothelioma. Dr. John Cho, a radiation oncologist at PM Cancer Centre, and Toronto General Research Institute Scientist Dr. Marc de Perrot worked together to design a new, more effective treatment for mesothelioma, named "Surgery for Mesothelioma After Radiation Therapy" (SMART).

The results of a clinical study to assess the SMART approach were recently published in the *Journal of Thoracic Oncology*. The study enrolled a total of 25 patients diagnosed with mesothelioma at PM Cancer Centre and Toronto General Hospital (TGH). Patients were treated using the two-step SMART protocol, which involved (1) a short, high dose of radiation, (2) followed by surgery within a week of radiation therapy to remove any remaining cancerous tissues.

Dr. Cho and his team found that SMART more than doubled the three-year survival rate of mesothelioma patients, from 32% to 72%, compared to patients who were treated with surgery first. Moreover, the participants experienced fewer complications and recovered faster. "These research results offer real hope to mesothelioma patients who have too often been told in the past that they may have only six months to live," said Dr. de Perrot.

This work was supported by the Princess Margaret Cancer Center Mesothelioma Research Fund.

A feasibility study evaluating surgery for mesothelioma after radiation therapy: the "SMART" approach for resectable malignant pleural mesothelioma. Cho BC, Feld R, Leighl N, Opitz I, Anraku M, Tsao MS, Hwang DM, Hope A, de Perrot M. J Thorac Oncol. *2014 Jan 17.* [Pubmed Abstract]

News and Events

New Learning Opportunities

UHN departments offer learning opportunities in a variety of formats to promote UHN policies and procedures to new and experienced research personnel. Here is a list of recently launched or upcoming opportunities:

New eLearning module: How to Successfully Submit to the REB [link]

New eLearning module: Research Agreements [link]

CAPCR Reviewer Series –This series of seminars is delivered by UHN experts who review clinical studies submitted to CAPCR. It aims to facilitate the submission and approval process, and provide users with information about upcoming changes to the CAPCR system.

Upcoming CAPCR Reviewer Series Speakers:

Joint Department of Medical Imaging (JDMI)
Date: Thursday, May 8, 2014
Location: Astellas Conference Room, CSB 11C-1135, TGH
Time: 12:00-1:00pm

Register here on the Intranet Community Calendar a few weeks

CAPCR Reviewer Series

UHN Conference: Advances in Personalized Cancer Medicine

On February 10th and 11th, the PM Cancer Centre hosted a conference titled, "Beyond the Genetic Prescription Pad: Personalizing Cancer Medicine in 2014". The event comprised over 30 presentations, which explored themes that spanned from the growing use of genomics in the clinic to the development of new immunotherapies against cancer.

The opening keynote address by Dr. Elaine R. Mardis provided a glimpse into the future of personalized medicine. As the Director of Technology Development for the Genome Institute (Washington University), she established an integrated and cutting-edge sequencing platform that enabled her, along with collaborators and clinicians, to create customized treatment protocols for patients with unresponsive cancers. These proof-of-principle case studies illustrated the great potential that exists for personalized cancer therapies and set the stage for the remainder of the highly successful event.

Research Policy Corner

Several projects have been initiated by the Clinical Research Support Services Planning and Implementation (CRSSPI) team, chaired by Lisa Alcia, Executive Director of Research Operations. In this section you will find the new research policies available on the Corporate Intranet.

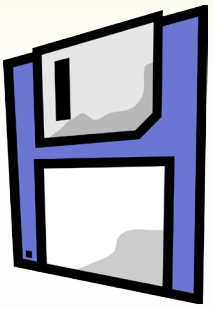
Data Ownership, Stewardship & Security of Health Information Policy

In May 2013, UHN launched the Data Ownership, Stewardship and Security Policy to ensure the proper management and storage of clinical and non-clinical research data generated at UHN. The policy describes the roles and responsibilities of UHN and its researchers regarding the handling of research data. Briefly, UHN and Principal Investigators (PIs) are responsible for managing, protecting and storing research data for the required retention period, which can be longer than a PI's appointment at UHN. To read the policy, click here or visit the UHN Policies webpage.

To help meet their data management obligations, UHN Research Information Systems (RIS) provides PIs with a variety of resources including secure servers and encrypted devices. Later this year, RIS will be launching a new online system for the long-term storage of research data.

Key features of new RIS storage system:

- 1.6 petabytes (millions of gigabytes) of usable space
- Intuitive file management through a standard drag-n-drop feature
- Tagging feature to facilitate file identification and retrieval
- Designed to store data generated through different types of research (eg, clinical trials)
- Pre-defined directory structures for some types of research



Quality Improvement and Best Practices

The Research Quality Integration (RQI) program focuses on areas critical to maintaining subject safety, data integrity and regulatory compliance. Through internal quality auditing and site support, the QI team assists researchers in recognizing opportunities for enhancing effective processes and operations, and identifies best practices that can be shared throughout the organization. The following is a continuation of a series of case studies highlighting examples of how to manage gaps in procedure and improve research best practices.

Data Retention in Clinical Research
According to UHN's Data Ownership, Stewardship & Security of Health Information Policy, Researchers must ensure that research data generated under their direction is retained at minimum for the length of their appointment at UHN or as required by regulatory agencies (eg, Health Canada), whichever is greater. During the retention period, the research data must be stored in a format that maintains privacy and is accessible, searchable and retrievable.

What Data and Records Must be Retained in Clinical Research?
Research data and records to be retained includes, but is not limited to, original documents, data and records pertaining to a research study.

Examples of data/records that must be retained:

- hospital records
- laboratory notes
- evaluation checklists
- REB approvals
- protocols and amendments
- clinical and office charts
- subjects' diaries
- pharmacy dispensing records
- informed consent documents
- contracts and agreements
- diagnostic images
- memoranda
- microfiches
- photographic negatives
- certified copies or transcriptions
- microfilm or magnetic media

Data Retention in Clinical Research – Case Study

Note: the following is a fictional case concerning the responsible conduct of research

Dr. X is leading an investigator-initiated, non-interventional study using questionnaires to determine how group rehabilitation affects emotional well-being. The study data is collected on paper and contains personal health information. This data is transcribed electronically into a database by the coordinator and saved on the hospital server.

The study spanned five years and 150 participants were enrolled. Initially, the study coordinator was storing the paper questionnaires in a locked cabinet that only the coordinator and Dr. X had access to. Over the course of the study, the amount of questionnaires increased and the coordinator started storing some of the boxes in an open cubicle area. After the study was completed, there were no funds left in the study budget to archive the study records, including the questionnaires, offsite. Because the study was complete and published, the coordinator had all of the study records destroyed.

One year later, the journal that published Dr. X's article notified Dr. X that the results of the study could not be reproduced by other researchers. The journal asked Dr. X to verify the study data. Dr. X was unable to provide the study records for review.

Not Storing Study Data Securely or for the Required Retention Period – What are the Risks?

Due to a lack of space, the coordinator resorted to storing boxes of study records in an unsecured office area, putting the study team at risk of a privacy breach of participants' personal health information. Moreover, the coordinator destroyed all records after the study was published without realizing that this did not meet institutional research data retention requirements. This oversight could lead to the retraction of Dr. X's article and this puts the reputation of Dr. X and UHN at risk. If the study was audited, there would be no evidence to reconstruct the study activities.

Effective Ways to Ensure Proper Retention of Data in Clinical Research

- Become familiar with data storage and retention requirements (eg, regulatory, sponsor, funder, contractual, protocol and UHN Policy 40.50.004 Data Ownership, Stewardship & Security of Health Information). Refer to the Research Record Retention Matrix, appended to this issue, for a summary of record retention periods.
- Secure resources for data/record storage (eg, electronic storage and/or physical space) prior to starting the study
- Include the cost of storing study data into the initial study budget
- Create departmental or study specific standard operating procedures for storing data that meet all applicable requirements
- Ensure study records containing personal health information are stored securely, with restricted access
- Store study records in a way that enables future personnel to search and retrieve specific data for the duration of the retention period

Why is it Important to Have a Data Retention Plan?

The study records show how the study was conducted and contain the data that was reported and published. By ensuring that study records are stored securely, for the required time period, the participants' personal health information is protected and the records can be retrieved if required. Principal Investigators need to consider the data storage and retention requirements, and have a plan as to how this will be satisfied prior to the start of the study. This will ensure that the necessary resources are in place for the duration of the study and its data retention period.

Feedback

TrialScribe is brought to you by UHN Research Communications. We hope you have enjoyed reading this newsletter.
Please note: this newsletter is designed for UHN internal purposes and, as such, contains links to some documents that can only be accessed through UHN's Research or Corporate Intranet.
The next issue of *TrialScribe* will be released in May 2014.
Some images adapted from the image archives of stock.xchng.ca.

Research Record Retention Matrix

Records contain information created during research that, taken together, allow for the complete and accurate reporting as well as interpretation and verification of research activities.

Records should be retained for as long as is required to satisfy their intended purpose and meet regulatory retention requirements. The following matrix summarizes record retention periods according to the type of study, or intended purpose, for which the record was generated.

Matrix A – Research Studies

Intended Purpose	Regulation / Guideline	Retention Period
Clinical Trials for Drugs & Biologics - Phase I, II, III trials - Phase IV trials	Health Canada Food and Drug Regulations Part C, Division 5	25 years from the date the record is created (includes REB records)
	U.S. 21 CFR 312.62(c)	2 years following the date a marketing application is approved for the drug for the indication for which it is being investigated; or, if no application is to be filed or if the application is not approved for such indication, until 2 years after the investigation is discontinued and FDA is notified
	U.S. 21 CFR 56.115(b)	REB records to retained for 3 years following completion of the research
Clinical Trials – Natural Health Products - Phase I, II, III trials - Phase IV trials	Health Canada Natural Health Products Regulations, Part 4	25 years from the date the record is created (includes REB records)
Clinical Trials – Medical Devices	Canadian Medical Devices Regulations, Part 3, Section 88 and Part 4 ICH Good Clinical Practice	The manufacturer, importer and distributor shall retain the distribution record maintained in respect of a medical device for the longer of the projected useful life of the product as determined by the manufacturer or 2 years after the ship date whichever is longer. This also applies for investigation devices.

		Distributors are also required to keep their exporter certificates for a period of 5 years after the distribution date. Additional requirements may apply (see Matrix B Records of Personal Health Information)
	U.S. 21 CFR 812.140(d)	2 years after the latter of the following two dates: The date on which the investigation is terminated or completed, or the date that the records are no longer required for purposes of supporting a premarket approval application or a notice of completion of a product development protocol
U.S. Department of Health and Human Service (DHHS)-funded research (includes NIH, NCI, etc)	45 CFR 46.115 (b)	At least 3 years after completion of research
Non-regulated, non-interventional studies involving human subjects	Public Hospitals Act 20(3)	10 years from the date of last visit, discharge, or death
Non-clinical studies supporting drug/biologic CTAs and marketing approval applications	Health Canada Guidance Document: Non-Clinical Laboratory Study Data Supporting Drug Product Applications and Submissions: Adherence to Good Laboratory Practice	10 years (from market notification date)

For studies conducted under an FDA IND (Investigational New Drug) or and IDE (Investigational Device Exemption), it is important to consult with the sponsor to determine record retention times as the timelines depend on the status of the marketing applications.