Improving Quality of Care and Patient Safety Through Accreditation

May 12th, 2008

Hosted by: Diagnostic Accreditation Program
Welcome to the “Improving Quality of Care and Patient Safety Through Accreditation” educational conference. This conference program has been developed to provide you with practical tools and information to assist you and your organization improve a patient’s quality of care.

The sessions for this conference were identified by reviewing data obtained through on-site surveys that indicated the areas that facilities are having the most challenges meeting. The Diagnostic Accreditation Program Advisory Committees were also instrumental in identifying topics of interest and presenters.

We are fortunate to have presenters that are experts in their field, and many are recognized by their peers for their outstanding commitment and contributions to quality improvement.

On behalf of the Diagnostic Accreditation Program Board of Directors, I would like to thank our presenters for giving so freely of their time and knowledge to share with us all as we continue to improve the quality and safety of patient care in British Columbia.

We hope you enjoy the conference.

Shannon Ajout Lee
A Systematic Approach to Quality and Safety in Diagnostic Medicine

Dr. Don Carlow,
Vancouver Island Health Authority, Board of Directors and
Diagnostic Accreditation Program, Board Executive

Synopsis: This presentation will address the principles and practice of a systematic approach to quality and safety in diagnostic medicine with an emphasis on medical peer review. Factors driving the need for enhanced quality and safety in this area will be reviewed along with initiatives that have been taken throughout health care to date. The importance of a systematic approach vs. an episodic and fragmented one will be emphasized. The interdependent nature of processes and the influence of one on the other will be discussed. Key principles that underlie a systematic approach will be identified followed by an outline of findings in the literature on error rates in pathology and diagnostic imaging and the reasons for these. An overview of best practice initiatives/solutions and tools to improve on medical quality and safety in these two diagnostic areas will be provided. Some of the recent technological advances which enhance standardization and peer review will also be noted. This will be followed by specific examples of what is taking place in each of these diagnostic areas in two health authorities in BC. The policy implications of needed improvement strategies will be briefly commented on.

Presenter: Dr. Carlow is the president of Lynross Consulting a firm engaged in various health care consulting activities. Through this company Don has led consulting teams in reviewing cancer control programs in various provinces, including New Brunswick--where he led the redesign of the cancer control system. He has also led similar activities in Manitoba and Newfoundland. He is also the medical consultant to the DAP and recently on behalf of the Emergency Health Services Commission undertook a comprehensive review of EMA medical oversight in BC. He also led the external review of the Manitoba Diagnostic Accreditation Program (MANQAP). He is a member of the board of the Vancouver Island Health Authority, where he chaired the board’s health quality committee for four years. Don proposed the establishment of the BC Council on Quality and Safety which is now in the developmental stages. He was also a judge for the 3M National Health Care Quality Awards for four years during the 90’s. He is the immediate past President and CEO of the BC Cancer Agency, where he led substantial redesign and redevelopment of the agency, including new cancer centers, as well as laying the ground work for the new BC Cancer Research Center. During his term at BCCA the Agency received a provincial award for quality planning. Under his leadership Canada’s first high throughput gene sequencing center was established at the BC Cancer Agency. Don is also the immediate past CEO of the Canadian Association of Provincial Cancer Agencies - an organization devoted to coordinating the activities of cancer agencies across Canada. He also served as a member of the governing council of the Canadian Strategy for Cancer Control from 1988 to 1993. Don was President and CEO of the Ontario Cancer Institute/ Princess Margaret Hospital in Toronto where he led the process of rebuilding the OCI/PMH in a new location. He also led the organization through a major quality transformation and received an award from the Ontario College of Physicians and Surgeons for leadership in medical quality. While in Ontario, Don chaired the Ontario CQI Network as well as the Senior Leaders Forum for Quality. From 1985 to 1988 he was the Senior VP Medical for the Winnipeg Health Sciences Center and Associate Dean Clinical on The U of M Faculty of Medicine. He was VP Medical for the Victoria General Hospital for 11 years and prior to that practiced family medicine in Victoria BC. He is a graduate of the University of BC.
Diagnostic Accreditation Program Annual Report
Sharmen Vigouret Lee, RT, BMLSc., MHA,
Executive Director,
Diagnostic Accreditation Program

Synopsis: Since the October 2005 DAP Conference, the Diagnostic Accreditation Program completed the implementation of several significant improvement activities. During this presentation, highlights of these improvement activities will be provided in addition to reviewing trends in performance of facilities from data collected through on-site surveying.

Presenter: Sharmen was appointed to the Executive Director's office in May of 2005 and since has been responsible for implementing the DAP's restructuring efforts. Ms. Lee comes to the DAP after a seven (7) year career with the BC Cancer Agency where she served as the Director of Quality Management and later appointed as the Agency's Chief Strategic Operations Officer. Sharmen brings to the DAP over 17 years experience in the hospital and health care sector that has included senior administrative roles and clinical experience as a Laboratory Technologist at BC's Children's and Royal Columbian Hospitals. She has also been responsible for developing and implementing quality systems and programs within the public and private sectors. She has extensive experience in implementing ISO 9001, Baldrige Criteria for Performance Excellence, and Canadian Council on Health Service Accreditation (CCHSA) accreditation programs. Sharmen has been an active participant on several boards and committees, some of which include the Quality Council of BC/BC Centre for Quality, UBC Alumni Association, Canadian College of Health Service Executives (CCHSE), and the Patient Safety Advisory Committee of the Canadian Council on Health Services Accreditation (CCHSA). She is also active in the Academic community holding clinical appointments at the University of BC (Adjunct Professor, Faculty of Medicine), and British Columbia Institute of Technology (Quality Management Program). Sharmen has a Master of Health Administration and Bachelor of Medical Laboratory Science from the University of British Columbia and is a registered medical technologist.

Who can request a diagnostic test/procedure?

Dr. Douglas Blackman,
Senior Deputy Registrar,
College of Physician & Surgeons of BC

Synopsis: Is a diagnostic test/procedure merely a “test”, or is it more than that? Expanded patient choice and access pose a number of challenges. This presentation will provide guidance in this changing environment.

Presenter: Dr. Doug Blackman obtained his MD from the University of British Columbia in 1969. He has been a member of the College of Physicians & Surgeons of British Columbia since 1970. He was certified as a specialist in Family Medicine in 1979. He was involved in the full spectrum of primary care delivery, including obstetrics and emergency room work, in private practice initially in Victoria and for 28 years in Prince George, British Columbia. During that time, he was a Consulting Medical Advisor to the Worker's Compensation Board, and served terms as the President of Medical Staff and Chief of Medical Staff at the Prince George Regional Hospital. Dr. Blackman joined the College of Physicians & Surgeons of British Columbia as a Deputy Registrar in 1999, and is currently the Senior Deputy Registrar. In that capacity he is responsible for the College’s major investigative processes, as well as overseeing the Diagnostic Accreditation Program of B.C., the Committee on Office Medical Practice Assessment Pro-
Revalidation of Medical Professionals

Dr. Douglas Blackman,
Senior Deputy Registrar,
College of Physician & Surgeons of BC

Synopsis: Medical regulatory authorities have the statutory obligation to ensure that those licensed for practice remain competent and performing to accepted professional standards. Professional accountability to the public demands that we confirm that obligation at the time of annual renewal of licensure. This presentation will review the College’s current plans for revalidation of licensure.

Presenter: Dr. Doug Blackman obtained his MD from the University of British Columbia in 1969. He has been a member of the College of Physicians & Surgeons of British Columbia since 1970. He was certified as a specialist in Family Medicine in 1979. He was involved in the full spectrum of primary care delivery, including obstetrics and emergency room work, in private practice initially in Victoria and for 28 years in Prince George, British Columbia. During that time, he was a Consulting Medical Advisor to the Worker’s Compensation Board, and served terms as the President of Medical Staff and Chief of Medical Staff at the Prince George Regional Hospital. Dr. Blackman joined the College of Physicians & Surgeons of British Columbia as a Deputy Registrar in 1999, and is currently the Senior Deputy Registrar. In that capacity he is responsible for the College’s major investigative processes, as well as overseeing the Diagnostic Accreditation Program of B.C., the Committee on Office Medical Practice Assessment Program, and the Clinical Competence Program of B.C. He currently serves as the President of the Federation of Medical Regulatory Authorities of Canada.

Disclosure Policies in British Columbia

Penny Washington, LL.B,
Bull Houser & Tupper

Synopsis: Disclosure of information to patients regarding adverse events is an issue facing many health care providers across the province. This presentation will review provincial policies, processes and procedures that have been developed for use by the health authorities in British Columbia.

Presenter: Penny Washington practises in the fields of health law, administrative law, human rights and professional liability litigation. She became a lawyer in 1985 and has been a Partner in Bull, Houser & Tupper’s Health Law Group since 1995. Penny regularly advises hospitals and health authorities on all aspects of law that affect their operations, including alternative service delivery contracts with private providers. She advises Medical Directors and Hospital Boards on credentialing, on-call compensation and service contracts, and other physician issues, including appeals of privileging decisions to the Hospital Appeal Board. Penny has prepared material for a number of Continuing Legal Education Society and Canadian Legal Insight seminars on civil litigation, health care consent and freedom of information issues, and has frequently lectured on tort liability and risk management to health care workers, administrators, boards of directors, students in the Faculty of Dentistry at the University of British Columbia and students in various health care disciplines at the British Columbia Institute of Technology. She has published several articles in Health Care News and the Lawyer’s Weekly on the issue
of disclosure of confidential information and the law of consent. She has published a chapter on Consent to Health Care for the Canadian Health Law Practice Manual (Butterworths, 2000) which has recently been published by LexisNexis in Halsbury’s Laws of Canada, Medicine & Health. She is the co-author of the chapter on Freedom of Information Law in the Continuing Legal Education Society’s Annual Review of Law & Practice (1999, 2000 and 2001). She has been a member of the faculty for the UBC Masters of Health Administration course, since 2004.

**Becoming a Surveyor Information Session**  
*Jennifer Love, BA,*  
*Manager, Surveyor Operations,*  
*Diagnostic Accreditation Program*

**Synopsis:** Surveyors are a valued and essential part of the DAP accreditation process. The DAP accreditation process requires Medical, Technical and Management Surveyors. Being a surveyor is a stimulating and rewarding experience and provides significant benefits to the diagnostic service being surveyed. Surveying provides opportunities to observe and disseminate good practice and provides opportunities for continuous personal and professional development. Exposure to other organizations also provides benefits to the surveyor’s own organization. Individuals interested in becoming surveyors are encouraged to attend this informal session to have any questions they may have answered.

**Presenter:** Jennifer comes to the DAP with extensive experience in management and coordination in the social service, and government sectors. She brings her leadership and management skills to the role of Manager, Surveyor Operations. She has twelve years experience coordinating social service programs including human resources and staff development. She has extensive training related to quality improvement systems and was the Continuous Quality Improvement Lead for a large non-profit agency using the Commission on Accreditation of Rehabilitation Facilities (CARF) model. As the Assisted Living Coordinator for the Office of the Assisted Living Registrar, Jennifer was responsible for the coordination and evaluation of registration based on outcome based standards and a best practice model. She coordinated the peer review model as part of the registration process and acted as the key contact for registrants and other stakeholders. Jennifer has a BA in Psychology from Simon Fraser University as well as advanced training in Quality Management, Crisis Intervention and Leadership.

**Using the Accreditation Report for Implementing System Wide Improvements**  
*Dr. Kirk Ready,*  
*Clinical Director Laboratory,*  
*Okanagan Health Services Delivery Area*

*Terry Brent, RT,*  
*Manager Laboratory Services,*  
*Okanagan Health Services Delivery Area*

**Synopsis:** In keeping with the theme of the DAP Conference theme of "Improving Quality of Care and Patient Safety Through Accreditation", Dr. Ready and Terry Brent will discuss preparation, on-site inspection and post-inspection impacts on the overall strategic plan of the Okanagan Health Service Area Laboratories in Kelowna General Hospital, Vernon Jubilee Hospital and Penticton Regional Hospital. When these laboratories were notified of the on-site inspection to be undertaken in May 2007, they were already on a multi-year strategic plan to
improve the service and quality of the laboratories. The laboratories had begun to work together in a collaborative way under the umbrella of the Okanagan Lab Steering Committee, chaired by Terry Brent since 2006. Discipline specific working groups were established in Chemistry, Hematology, Transfusion Medicine, Microbiology, Histology and Accession. A quality coordinator had also been appointed. With these organizational structures, the preparation for accreditation was taken in stride. The OHSA Lab leadership recognized that the goal of full accreditation, with ratings of level 4 or 5 was going to take a few years. They advised the OLSC and all the OHSA Lab staff that this was a journey and that all we could do was our best. Self Assessments in preparation for accreditation were completed together by the three labs, including the chief technologists, and section heads. All three hospital labs understood that they were all at about the same level of development. This preparation fostered collaboration, cooperation and team work. At the time of on-site inspection, there were really no big surprises. When each site "finally" received their reports from DAP, there were again no surprises in the awards of Accreditation with Report except for the time-lines. The time-lines were worked out with DAP and the process of addressing the requirements commenced. The discipline working groups continue to work together but now with refocused priorities and the realization that all three labs had similar requirements. In conclusion, the DAP was very helpful to the OHSA Labs as it provided further confirmation that "we" are going in the right direction which had already been set as part of the OHSA Lab strategic plan.

**Presenter:** Dr. Kirk Ready is the Clinical Director of the Okanagan Health Service Area Laboratories, including the hospital laboratories at Kelowna, Vernon, Penticton, Revelstoke, Salmon Arm, Oliver, and Princeton. He was previously the Laboratory Medical Director for Chinook Health Region in Southwest Alberta. He was born and raised in Saskatoon where he received his MD from the University of Saskatchewan. He subsequently completed a residency in General Pathology at the University of British Columbia. He has served on a number of professional and health care related committees locally, regionally and provincially in Alberta. He has served as the President of the Alberta Society of Laboratory Physicians and has chaired the Chinook Health Region (CHR) Breast Health Program Steering Committee, CHR Telehealth Committee and Council of Laboratory Leaders in Alberta. He served on the Advisory Committee on Laboratory Medicine of the College of Physicians and Surgeons of Alberta. He has been on both sides of lab accreditation inspections and is an ardent supporter of medical laboratory accreditation and laboratory proficiency testing programs.

**Accreditation Basics**

*Helen Healey, RN, BScN,*  
Director, Accreditation Services,  
Diagnostic Accreditation Program

**Synopsis:** This presentation will address the What, Why and How of DAP Accreditation by highlighting how to use accreditation standards and processes to assess and improve the quality of services in diagnostic facilities.

**Presenter:** As Director, Accreditation Services, Ms. Healey is responsible for the co-ordination and planning of the accreditation process. Helen comes to the Diagnostic Accreditation Program from Fraser Health, where she held the position of Manager, Risk Management Systems. Helen provided leadership in the development of Fraser Health’s risk management, client relations, and patient safety systems. She led and facilitated the development of a quality review structure and processes, the establishment of risk management practices on all fronts of the
organization, and contributed significantly to the foundation of an enterprise-wide approach to risk management. Previously Helen was a Quality Management Advisor for the former Fraser South Region, where she provided leadership in the areas of quality improvement, and served as a key resource during preparation for regional Accreditation surveys by the CCHSA. Helen has a BSc.N (Hon) from the University of British Columbia with a background in ICU, and CCU nursing. She also has experience in clinical research.

Optimizing Dose for Patient Safety

Dr. John Aldrich,
Regional Leader, Diagnostic Imaging Physics, Department of Radiology,
Vancouver Coastal Health

Synopsis: There is increasing concern over the patient radiation dose associated with x-ray procedures. This brief talk can only be an introduction to this broad subject and will emphasize practical methods which can be applied in any radiology setting.

The following questions will be addressed:

What is meant by dose?
How do we estimate the dose to our patients in radiography, computed tomography and angiography?
How do we decide what dose is optimal?
How do patient doses in BC compare with other centres?
What can I do in my clinic/hospital?

Presenter: Dr. John Aldrich has worked in many areas of the application of radiation in medicine, including radiation therapy, nuclear medicine, x-ray imaging and radiation protection. For the last 15 years he has worked exclusively in medical imaging. He is involved with many areas including system specification, design, acquisition and acceptance; radiation protection and shielding; and optimization of imaging protocols. He guided the implementation of PACS at VGH and UBCH and project-managed the Radiology section of the new Outpatient Centre at VGH. He has served on many provincial, national and international committees and has published over 90 refereed journal articles. In the last few years many of these papers have been concerned with patient radiation dose and digital imaging systems.

Quality Systems in the Pulmonary Function Laboratory

Carl Mottram, BA, RPT, RPFT, FAARC,
Director, Pulmonary Function Labs & Pulmonary Rehabilitation Program
Associate Professor of Medicine—Mayo Clinic College of Medicine

Synopsis: Quality test results in the pulmonary function laboratory do not simply mean performing routine calibration and quality control, but require that we review all processes across the "Path of Workflow". This session will discuss the various aspects of implementing a quality system approach, including pre-test, testing, and post test processes of improvement in the pulmonary function lab.

Presenter: Mr. Mottram is the Director of the Mayo Clinic Pulmonary Function Laboratories and Pulmonary Rehabilitation Program and holds the academic rank of Associate Professor of Medicine, Mayo Clinic College of Medicine. He is a Respiratory Therapist and Register Pulmo-
Quality Control in a Digital World

Dr. John Aldrich,
Regional Leader, Diagnostic Imaging Physics, Department of Radiology,
Vancouver Coastal Health

Synopsis: Since the year 2000 Medical Imaging has radically changed - from a mainly analogue discipline to one which is almost completely digital. Radiologists and clinicians now have timely and comprehensive access to important medical information. In the digital world this change has meant that the acquisition, storage and viewing of exams have been completely separated. In order to ensure the validity of image information this has imposed extra levels of quality control for the imaging modalities, the PACS and the display systems. In most cases manufacturers do not provide automated QC systems, and these have had to be adapted from other devices. Personal experience with QC in computed radiography, digital radiography, computed tomography, and PACS workstations will be used as examples.

Presenter: Dr. John Aldrich has worked in many areas of the application of radiation in medicine, including radiation therapy, nuclear medicine, x-ray imaging and radiation protection. For the last 15 years he has worked exclusively in medical imaging. He is involved with many areas including system specification, design, acquisition and acceptance; radiation protection and shielding; and optimization of imaging protocols. He guided the implementation of PACS at VGH and UBCH and project-managed the Radiology section of the new Outpatient Centre at VGH. He has served on many provincial, national and international committees and has published over 90 refereed journal articles. In the last few years many of these papers have been concerned with patient radiation dose and digital imaging systems.

Using Tracer Methodology to Conduct Internal Assessments

Brenda Watson, RTR, RTMR,
Accreditation & Research Development Officer,
Diagnostic Accreditation Program

Synopsis: This presentation will provide practical insights into what is tracer methodology and how it can be used to conduct internal assessments, totally independent of the accreditation process. The health care field is notable for its openness to studying and adopting viable improvement methodologies. It has not been unusual to see an organization employing improvement methodologies that have emerged in other career fields, such as Six Sigma, Lean thinking, failure mode and effects analysis and root cause analysis. Another example is tracer methodology, which has evolved from its early roots in scientific research to be adopted by the health care field not only as an accreditation survey tool, but as an ongoing tool to identify and study any unwanted trends in the delivery of care and services and implement changes or improvements to their processes. The inherent flexibility in tracers makes them more easily adapt to an organizations own improvement efforts. This flexibility allows organizations to use
tracer methodology in a variety of ways. Objective: Demonstrating the value of incorporating tracer methodology into an organization’s Quality Management System.

**Presenter:** Brenda brings to the Diagnostic Accreditation Program over twenty-five years experience working in public and private Diagnostic Imaging facilities in British Columbia. Her broad range of experience includes working as an imaging technologist and the role of Clinical Instructor for Radiology for a large tertiary care facility in BC that included a leadership role in the cross-sectional imaging department. Most recently, Brenda has focused on the Imaging Informatics field, working at McKesson Medical Imaging Group where she was involved in the development and implementation of Picture Archiving and Communication Systems (PACS). After a successful 26 month tenure at McKesson, Brenda was appointed to a role of PACS Administrator for the Vancouver Coastal Health Authority. Brenda has collaborated with many key members of the imaging community over her 25-year career and continues to progress her passion for knowledge and education in the Diagnostic Imaging field.

**Point-of-Care Testing: Clinical & DAP Perspectives**

*Dr. Arun K. Garg,*  
**Regional Medical Director Laboratory Medicine, Department of Pathology and Laboratory Medicine,**  
*Royal Columbian Hospital/Fraser Health*

*Colin Semple, ART,*  
**Accreditation & Research Development Officer,**  
**Diagnostic Accreditation Program**

**Synopsis:** What are the forces driving POCT? What challenges does POCT present the laboratory? What are the uses of POCT in acute and chronic care settings? What are the main clinical, technical, administrative and financial considerations of POCT? All of these will be discussed as well as a summary of the new POCT Accreditation Standards. “101.6.2 Overall responsibility for POCT is assigned to the facility or regional laboratory leader or designate.” Mandatory or Non-Mandatory?

**Presenter:** Dr. Arun K. Garg is the Medical Director of Laboratory Medicine/Pathology at Fraser Health. He holds a Doctor of Medicine from the University of British Columbia, and a Doctor of Philosophy in Biochemistry from the University of Saskatchewan. Early in his career, he was called to chair the Canadian Association of Pathology Guidelines for use of glucose meters and has continued to have a keen interest in POCT and its use in medicine. Dr. Garg has chaired the Provincial Group for POCT Guidelines and is a current member of the Diagnostic Accreditation Program’s Advisory Committee for Point of Care Testing (POCT).

**Presenter:** Colin Semple has over 30 years of experience in clinical laboratories ranging from general duty work in small community hospitals to managing laboratory operations at a large multi-site tertiary care centre. In addition to teaching Clinical Microbiology at the Michener Institute, Colin has worked in all areas of pathology as a Registered Technologist, and has attained his ART in Clinical Microbiology. Colin has worked with many of the leading pathologists and technologists in the province and has also been involved with special projects at the Provincial Laboratory Coordinating Office (PLCO).
Document Control and the Linkage to Quality and Patient Safety

Debbie Penn, RT,
Manager, Total Quality,
BC Biomedical Laboratories

**Synopsis:** Documenting the work you do and how you do it is more important now than ever. Increasing challenges in attracting and retaining staff make the protection of information for training and reference purposes critical to the long term quality of the diagnostic service. But once you have the documentation, how do you protect its accuracy? Having great documents hidden from updates and incorrect versions deployed for use is as bad as not having any documents at all. Following an outdated diagnostic procedure potentially places the results, and more importantly, the patient at risk. Document control is a straightforward concept, but getting it from theory to reality can be daunting without a roadmap. This presentation will provide a 30,000 foot perspective to the key processes of document control, what they mean, and why they are important.

The topics will be addressed:
- Document lifecycle
- Roadmap for document control implementation
- Lessons learned

**Presenter:** Debbie Penn has worked at BC Biomedical Laboratories for 29 years in various capacities including Hematology Supervisor and Quality Assurance. She has been Manager of the Total Quality Department since 2004. Debbie is passionate about document control and has been evolving document control strategies at BC Biomedical since 2001. Debbie participated in the provincial Quality Management Working group in 2006-2007, and completed her UBC Certificate in Laboratory Quality Management in 2007.

Quality Improvements in Breast Health Analog to Digital Mammography

Dr. Rasika Rajapakshe,
Senior Medical Physicist,
BC Cancer Agency (Southern Interior)

**Synopsis:** Mammography was the last medical imaging modality to adopt the digital technology. The main reason behind this late adaptation is the very stringent spatial and contrast resolution requirements in mammography. In 2005, the ACR DMIST clinical trial showed that screening with digital diagnostic mammography is better for certain groups of women, which paved the way to adopting digital diagnostic mammography in the province of BC. This presentation will cover the quality assurance aspects of digital diagnostic mammography including that of digital detector, acquisition workstation, display workstation and hardcopy printer. It will also cover the interoperability and information sharing problems that impact patient care in mammography.

**Presenter:** Dr. Rasika Rajapakshe is a senior medical physicist at the Center for the Southern Interior of the BC Cancer Agency in Kelowna. He has been involved in the Screening Mammography Program of British Columbia (SMPBC) since 1995. Currently he is the Physics Leader for the SMPBC. He is also a member of the Academic and Screeners Advisory committees of the SMPBC. He is the Chairman of the Physics of Mammography Accreditation Committee at the Canadian College of Physicists in Medicine. He also serves as an external reviewer for the Mammography Accreditation Program of the Canadian Association of Radiolo-
BI-RADS

Dr. Christine Wilson,
Radiologist, Breast Imaging,
BC Cancer Agency

Synopsis: BI-RADS — Breast Imaging Reporting and Data System — is a reporting system designed in a collaborative effort by committees of the ACR, NCI, Centre for Disease Control and Prevention, FDA, AMA, The American College of Surgeons, and the College of American Pathologists. It is a quality assurance tool designed to standardize mammographic reporting and to facilitate outcome monitoring. The MQSA (Mammography Quality Standards Act) became law in October 1992 in the USA. Under the Quality and Quality Control portions of the Act there is a provision in place for a system to review outcome data. There must be follow-up of positive mammograms and correlation with surgical biopsy results and the mammographic reporting. Also the MQSA stipulates that use must be made of the 1-5 final assessment categories of the ACR BI-RADS lexicon in reports. These final regulations went into effect in April 1999. We also now use a 0 assessment with screening mammograms that require further imaging such as additional mammographic views and/or ultrasound. The BI-RADS system deals with breast composition, specific findings such as masses, calcifications, architectural distortion and other miscellaneous findings. These lesions are described, their location and distribution noted and note is also made of other special features. Following this a BI-RADS final assessment category is assigned.

Mammographic Surveillance and/or Follow-up

There is no universally selected protocol. The most widely used is a six-month follow-up using the technique which best illustrated the lesion during the work-up. The patient then has a bilateral mammogram six months later. This is followed by one or two additional bilateral annual mammographic examinations. This is a total of three to four examinations over a two to three year period. Any interval change that raises even a slight suspicion of malignancy prompts a call for biopsy. Also six-month follow-up is no longer the protocol for multiple bilateral masses and generalized calcifications. These are now returned to annual mammographic follow-up. The ultrasound follow-up protocol is identical. If the interval growth is greater or equal to 5 mm in any dimension over a six-month interval then surgical excision is recommended. The six-month follow-up, generally, remains controversial. The argument made against it is that after a thorough workup the lesion in question shall either go onto a tissue diagnosis of some kind or can be returned to annual follow-up avoiding the anxiety and further expense of a six-month follow-up. Also the use of category 3 remains the most inconsistent and variable of all of the final assessment categories.

Why should we use BI-RADS?

The use of the BI-RADS system is an attempt to standardize our method of description of mammographic abnormalities, our approach to the interpretation of these findings and our recommendations for assessment and follow-up. It can also be invaluable as a tool for data keeping and follow-up.

Presenter: Dr. Wilson has worked for many years as a Diagnostic Radiologist in a number of Canadian centres including Saskatchewan, Toronto ON, Vancouver and Terrace, BC. She now works exclusively in Breast Imaging and has done so for the last 10 years. Before returning to the West Coast in 2004 she practiced at the Princess Margaret Hospital in Toronto as a...
Breast Imager and was an Associate Professor in Diagnostic Imaging at the University of Toronto. She is currently a Breast Imaging radiologist at the BC Cancer Agency and at BC Women’s Health Centre. She does monthly Breast Imaging Clinics in Terrace, BC. She is a Clinical Associate Professor in Diagnostic Imaging at UBC. She has a special interest in Breast MRI and has recently implemented the only MR guided breast biopsy program in the province.

**Immunohistochemistry Proficiency Testing**

**Dr. Robert Wolber,**  
Anatomic Pathologist  
Lions Gate Hospital

**John Garrett, RT,**  
Technical Specialist, Anatomic Pathology,  
Lions Gate Hospital

**Synopsis:** Dr. Wolber’s presentation will focus on the clinical development of prognostic tissue biomarker testing by immunohistochemistry, the emerging requirement for external proficiency testing of laboratories performing these studies, and the application of tissue microarray technology in the introduction of the British Columbia Immunohistochemistry Proficiency Testing (BCIPT) program. Mr. Garrett will provide an overview of the Canadian Immunohistochemistry Quality Control Program.

**Presenter:** Dr. Wolber is the Anatomic Pathology Medical Discipline Leader for Vancouver Coastal Health and the Anatomic Pathology Science Section Head for the BC Association of Laboratory Pathologists. He has been a surveyor for and advisor to the Diagnostic Accreditation Program of BC for the past decade. He has been an extremely active surgical pathologist and a director of immunohistochemistry laboratories for the past 20 years.

**Presenter:** John Garrett is the Technical Specialist, Anatomic Pathology for Vancouver Coastal Health. John is a Medical Laboratory Technologist qualified in Cytology and Histotechnology who has worked in the UK, Manitoba and Nova Scotia before arriving in BC in 1986 where he supervised the Anatomic Pathology laboratory at Lions Gate Hospital before taking a regional position with Vancouver Coastal Health in 2005.

**Disaster and Emergency Preparedness Planning**

**Dr. Allan Holmes,**  
President,  
Global Medical Services

**Synopsis:** The effective management of medical emergencies at hospitals and off site diagnostic facilities alike continues to evolve as new technologies and training practices are introduced. Additionally, sites must also prepare to manage their patients and staff during non-medical emergencies such as fires, floods, power outages, and even bomb threats. While trained help may be nearby, sites nonetheless need to be aware of their roles and responsibilities in the critical minutes of an emergency. In order to ensure that your site is prepared, a regularly exercised emergency plan ideally should be in place. This interactive session, led by Dr. Allan Holmes, will outline practical tips on how you can better prepare your site for an emergency event which could otherwise have disastrous consequences. Dr. Holmes has over
10 years of experience assisting medical, surgical, and diagnostic groups in developing emergency plans that not only comply with accreditation requirements, but also implement a coordinated and consistent “best practices” emergency response system.

**Presenter:** Dr. Allan Holmes, President and Founder of Global Consulting and Global Medical Services, is a fellowship trained Emergency Physician. Currently, Dr. Holmes oversees a number of complex health services projects across Canada, in all areas of pre-hospital and emergency care. He has provided his consulting expertise to over 200 fire rescue services, health facilities and corporations.

**Lorraine Guillet, RTR, RTMR, CTIC, Bapp.Sc,**  
PACS Administrator,  
Northern Health

**Synopsis:** Northern Health has encountered a few disastrous events in the last 1.5 years that will be discussed ranging from flooding, power failure lasting over 8 hours, and network failure. How these disasters were overcome will be discussed, and lessons learned from them shared.

**Presenter:** Lorraine became CAMRT certified in 1991, and has since worked in Edmonton, Alberta and Australia. She has been working at Prince George Regional Hospital (PGRH) since 1993 and has become certified in CT, MRI scanning, and has obtained a Degree in Medical Imaging. She has also taken on the role of PACS Administrator for PGRH and was acting regional PACS Administrator during the implementation phase of a regional PACS archive system.

**Neurodiagnostic Intra-operative Monitoring**  
**Karin Liddle, RET,**  
Supervisor & Senior Technologist, Diagnostic Neurophysiology, EEG Section,  
Vancouver Acute, Vancouver Coastal Health

**Synopsis:** Simply put, Intra-operative Neurophysiologic Monitoring (IOM) is used to provide early warning to the surgical team about impending neurologic deficits and to protect neural structures at risk during surgical procedures. IOM recordings offer an objective and effective way to assess the functional integrity of the nervous system of the patients during the course of specific neurosurgical, orthopedic spine, vascular and cardiovascular surgery. IOM not only decreases the likelihood of permanent neurological deficits but also provides the surgeon with timely feedback with regard to particular surgical manipulations and allows the surgical team to modify their actions accordingly. Intra-operative Monitoring has progressed in a very positive way since the early 1970’s. Karin will present a brief history and then answer the questions of Why, How, and What the IOM program at Vancouver Acute, Vancouver Coastal Health contributes to the optimal delivery of safe and efficient health care in British Columbia.

**Presenter:** Karin Liddle has worked and trained in Diagnostic Neurophysiology at Vancouver Acute, Vancouver Coastal Health (VA/VCH) since December 1973 performing Electroencephalograms, Evoked Potentials, Carotid Endarterectomies, Corticography and long term monitoring in the Seizure Investigation Unit (SIU). In 1988, Karin began working part time at VA/VCH and spent the remainder of her time teaching Diagnostic Neurophysiology at the British Columbia Institute of Technology (BCIT). In 1992, Karin became a member of the Intra-operative Neurophysiologic Monitoring (IOM) team at VA/VCH. Since 1992, Karin has attended many international conferences in IOM including New York, California, and Washington. Karin has
been the Supervisor of Diagnostic Neurophysiology-EEG section at VA/VCH since 2003. In the most recent fiscal year this high-traffic laboratory performed 2,906 EEG’s, 685 Evoked Potentials, 1,787 tests on 166 patients in the SIU and there were 264 patients who had Intraoperative Neurophysiologic Monitoring. Karin is a member of the Electroneurophysiology Program Advisory Committee at BCIT, has been an invaluable surveyor for the Diagnostic Accreditation Program as well sits as an active member on the DAP’s Advisory Committee for Neurodiagnostics EEG & Evoked Potentials.

**Provincial Health Informatics Projects**

*Jim Mickelson, MBA,*  
*Canada Health Infoway*

**Presenter:** Jim Mickelson is the Executive Director – Western Region, for Canada Health Infoway. Based in Vancouver, Jim leads Infoway operations in Alberta, BC, and Yukon. Since joining Infoway in 2003, Jim has succeeded in building and strengthening key strategic relationships with partners in both the public sector and private industry in support of Infoway’s mission. He works with Infoway’s public sector partners to structure high-potential EHR projects for Infoway investment, and oversees a portfolio of more than $300 million invested in more than 60 projects in the Western Region. With senior experience in both the public and private sector, Jim has provided leadership in the delivery of information technology and telecommunications projects throughout western Canada. In the healthcare sector, this has included EHR planning and Hospital Information System procurement in Manitoba, planning and requirements definition for the Physician Office System in Alberta, and a variety of planning and implementation activities with BC’s health regions. Jim has consistently had a focus on using technology as an enabler to improve business processes and service delivery across industries including Forestry, Education, Municipal Government, Public Utilities, and Software Development. Jim holds an MBA from the University of Manitoba and a Bachelor of Journalism from Carleton University.

*Paul Brownrigg, MBA,*  
*Project Director, eHealth Connecting DI Project*

**Synopsis:** The Connecting DI Project (CDI) is one of a number of projects that will jointly deliver the eHealth initiative in BC. CDI will develop a solution that integrates existing digital imaging systems (PACS and RIS) to deliver diagnostic imaging results to end users via the BC interoperable Electronic Health Record (iEHR) leveraging the infrastructure of eHealth. Features that deliver services such as privacy and security will, therefore, be addressed in a consistent and comprehensive fashion across the whole provincial eHealth initiative and each of the domain projects such as CDI need not create its own. As the healthcare environment becomes increasingly reliant on digital technology new opportunities and challenges are presented.

Opportunities include:

- Improved sharing of relevant clinical information
- Reduction in repeat exams saving time, money and radiation dose
- Improved productivity
- Improved workflow
• Workload balancing across a large geographic area
• Decision support tools
• Integrated reporting technologies
• Tele-radiology
• Reduction in operating costs
• Sustainability (HR and demand challenges)

Challenges include:

• Change in practice
• Change in governance
• Change in patient access to information
• Implementation cost
• Re-distribution of costs
• Privacy and security
• Interoperability standards
• Quality Assurance in a digital environment
• Network and file transfer speeds
• Service continuity planning

**Presenter:** Paul Brownrigg has many years experience in healthcare both in the diagnostic imaging field and as a senior executive in the NHS and latterly as President of INSITE Consultancy. Paul is engaged in national and international fields of healthcare technology application to transform clinical processes. His professional background is clinical (Medical Imaging) and he has taught management at Manchester University and played an active role in numerous Kings Fund Organization Audit and Accreditation programs in the UK. INSITE Consultancy is a BC-based consulting firm specializing in Healthcare Management with a focus on the application of technology in clinical process transformation. INSITE is currently engaged in the delivery of the eHealth Connecting DI project and Paul is the Project Director.

Select copies of the presentations seen at this conference will be available for download at the Diagnostic Accreditation Program’s website located at www.dap.org after the conference.