A Message from the General Internal Medicine Division Director: Akbar Panju

Once again it gives me great pleasure to write this message for the CityWide McMaster GIM Division Newsletter, Fall 2015 edition.

Our co-editors, Dr. Daniel Brandt Vegas and Dr. John You, have put together this Newsletter with all the relevant information and with a key theme of Competency Based Training.

Our GIM Division is thriving with great academic activities. As you will note, there have been publications in key high impact journals by our members. We also have one of our members who will be an inductee to the Canadian Medical Hall of Fame!

Our Division has been fortunate in recruiting very high caliber full-time General Internists, and in fact they are a product of McMaster University, having trained in our own GIM program.

Since the last Newsletter, we have lost two of our senior members.

Dr. David Sackett (known to us as Dave), who was the father of evidence based medicine, died in May 2015. Dr. Sackett was a mentor to many of us in the Division of General Internal Medicine and his contribution to McMaster University, Canadian medicine, and to the international medical community was immense. We all have lost one of the giants in medicine.

The other person we lost recently was Dr. Daniel Dwyer, who was a Professor of Medicine at McMaster and based at the Henderson General Hospital (now known as the Juravinski Hospital). Dr. Dwyer was one of the role models for clinician-educators and he trained many of us in internal medicine. He was a colourful, dynamic and vibrant individual who made medicine fun. He educated numerous learners over the many years of his practice and we all learnt a lot from his teachings.
The Division is very sorry to have lost these two members in the last few months.

As mentioned, this Newsletter is devoted to Competency Based Training among medical educators in Canada. There is a very well written article by Dr. Brandt Vegas, who describes the competency based structure, why it is important, and some of the challenges we will face in implementing this model in Hamilton. Dr. Shariq Haider, as the Program Director, discusses in depth the implementation of the “Competency by Design” framework for the Royal College. Dr. Haider is also part of the Core Internal Medicine Program Directors Working Group that is going to help implement this across Canada. There is a lot of work in front of us and this is highlighted by both authors.

This edition also identifies all the publications by GIM members. You will note that academically, our Division is extremely productive.

On behalf of everyone, I wish to thank our co-editors in putting this edition together.

Thank you,

Akbar Panju
Division Director, General Internal Medicine
NEWSWORTHY ITEMS

**New recruits:** Dr. Daniel Brandt Vegas, Dr. Jason Cheung, Dr. Samir Raza, and Dr. Ahraaz Wyne

**Awards and honors:**

- Congratulations to Dr Gordon Guyatt on winning the Department of Medicine/Undergraduate Medical Student Research Award.
- Dr. Guyatt is the 2016 inductee into the Canadian Medical Hall of Fame – congratulations Gordon on this outstanding achievement!

**Other newsworthy items:**

- Congratulations Dr. Jim Douketis on publishing two (!!) papers in the highest impact medical journal in one month.

  - [Perioperative Bridging Anticoagulation in Patients with Atrial Fibrillation.](#)

- [Screening for Occult Cancer in Unprovoked Venous Thromboembolism.](#)

- **Annual Internal Medicine Residency Program Holiday Gala/Uganda Fundraiser:**

  - Hamilton Yacht Club, Friday Dec 11, 2015, in the evening
  - Looking forward to another great event with lots of fun, food, silent auction (proceeds to Uganda), and dancing.
  - For more information, contact Dr. Ally Prebtani [prebtani@hhsc.ca](mailto:prebtani@hhsc.ca)

- **The next GIM Resident Journal Club:**

  - Friday December 18th, 2015 at noon.
  - The Host Site will be St. Joseph’s Healthcare and will be video-conferenced to the other sites. Further details to follow.

- **The next Regional General Internal Medicine Dinner Meeting:**

  - Tuesday January 12th, 2016. Please mark your calendar! Agenda to follow.
One of our members, who asked to remain anonymous, wrote a poem about life on the merry go round. Buy the ticket, take the ride.

On the Merry Go Round

On the Merry-Go -Round
I go round and round
The wind in my hair
The rain in my eyes
The grip in my hands
The thrill in my heart

On the Merry Go Round
I go round and round
A pat on the back
A cry in the ear
Laughter all around
The innocence abounds

On the Merry Go Round
I go round and round
Ambition in my eyes
Lets go faster and faster
Whats stopping me
The world is my playground

On the Merry Go Round
I go round and round
Time flies by
People pass by
the world goes on
by and by

On the Merry go round
I go round and round
The sky is dark
The stars are bright
the world is quiet
yet I go on and on content
Competency-based training

Given the ongoing conversation about competency-based training among medical educators in Canada, along with the early stage of change in our own Internal Medicine Program, we thought it would be interesting and helpful to focus this edition on this topic. We hope you find the following articles informative and thought-provoking, and most of all, that you enjoy reading them.

Competencies and Assessments
By Daniel Brandt Vegas

Medical Education is changing in Canada. This is usual and expected. However, this time, the change is a deep and fundamental shift in paradigm that will affect the entire process of training physicians. Because that sounds a bit overwhelming and self-important, let me try to present a little background for this change, and then unpack what I think it will really mean to Residency programs across the country.

Although the transition to Competency Based training is new, the issue of competencies in medical education has been around for a while. In 1996 when the Royal College of Physicians and Surgeons of Canada (RCPSC) developed the CanMEDS framework consisting of seven different roles that are each interconnected, they were getting at the idea that being a competent physician meant more than just being knowledgeable. They were already defining in a general sense the competencies that are considered necessary to practice medicine in Canada. Later on in 2012 a joint committee named “The Future of Medical Education in Canada Postgraduate Project” came up with recommendations on how to improve Residency training in Canada. Much of these were focused on implementing a competency-based model. The RCPSC since then has been working on a national strategy to carry out this change throughout all subspecialty training by focusing on small groups of subspecialties at a time. Internal Medicine programs were included in the second group along with Anesthesiology, Urology, General Surgery, Gastroenterology, and Pathology. These specialties were scheduled to start the transition in 2015.

In 2010, a paper by Jason Frank et al. defined competency in the context of medical practice as “an observable ability of a health professional, integrating multiple components such as knowledge, skills, values, and attitudes.” To me it seems that observing and measuring these abilities which span across knowledge, skills, and attitudes is pretty much what we’ve been doing all along as teachers. The big difference is in doing this in a structured and carefully documented way.

It seems that until now our residency program has largely focused on the process the trainees go through, trusting that the vast majority of trainees who successfully complete the program will be qualified to practice Internal Medicine. We’ve also implemented several measurements and mechanisms to identify areas where trainees need attention or to flag learners who may be in need of remediation. Where our current system fails, though, is in ensuring that each and every resident has demonstrated the ability to provide patient care at the standard for Internal Medicine practice. We assume this is the case for any trainee who completes three years of training without being flagged as having important deficits. We also feel reassured by the idea that the RCPSC licensing exam will find any sub-standard trainees we might have accidentally or conveniently allowed to slip through. We
think our trainees are good enough to practice unsupervised, and the high rate of success on the RCPSC exam seems to confirm this. But we don’t really know this is true; instead we infer it is.

Our accountability as a profession, as a training program, and as individual clinicians, suggests that we need to embrace a system in which we can definitively and unequivocally say that we’ve seen each single trainee perform at a level that deserves a license to care for our neighbours, parents, siblings, children, and spouses. We shouldn’t ignore the experience from the process-based approach used until now, but we need to add an outcomes-based approach, which allows us to observe and comment on how our trainees provide patient care in the clinical setting. Are they achieving the mark? Where do they need to improve? How can we help them get there?

Perhaps the biggest change our program will go through, from a practical perspective, will be adapting to a culture in which we frequently assess trainees on their clinical activities, as well as ensuring that these assessments are documented and compiled in an ongoing file or portfolio. To achieve this we will need to come up with innovative assessment tools and ways of implementing them, that blend into our workflow with minimal disruption to an already crammed and overloaded academic clinical practice. Changing from the end-of-rotation assessment mentality to an ongoing direct observation and micro-assessment mentality will also require a healthy dose of teacher buy-in and sexier-than-ever faculty development, along with some combination of incentives and regulations to push the culture change forward.

Finally, an interesting element in competency-based training is that it incorporates the learners into the assessment process by making them responsible for seeking direct observation during their clinical activities. The expectation is that the learner ensures a minimum number of work-place assessments in a predetermined list of activities, in order to be allowed to advance from one level to the next.

Implementing a competency-based system has several challenges and many limitations. Some of the major problems others have found and discussed are related to length of training, defining which clinical activities are “key” to the specialty and how to grade them by training level, and carrying out and documenting frequent assessments with an acceptable degree of validity. Each of these problems has many sub-components and nuances. They all present an opportunity for great resistance and potential failure. However, they also present a variety of opportunities for innovation and scholarship. Each of these limitations are questions, the answers to which will contribute to advancing our medical education system and potentially patient care across the country. As we move forward with this major paradigm shift, each of us will have to decide whether we add to the pile of obstructive resistance and motionless criticism, or whether we take a positive approach to identify challenges and creative ways to meet them. The change has been adopted by the RCPSC, but the choice is ours.

DBV
A PROGRAM DIRECTOR’S PERSPECTIVE ON COMPETENCY BASED EDUCATION IN CORE INTERNAL MEDICINE

The Royal College of Physicians and Surgeons of Canada (RCPSC) has outlined a planned transition for all Postgraduate programs to a new framework that is focused on an outcomes approach to medical education. Its key tenets include greater engagement and empowerment of the learner in his/her education, and a better alignment of medical education with lifelong learning, reflecting societal needs.

I think it is fair to say that there are many questions about the Competence by Design Framework, so I would like to examine reasons that support the transition. In our present system of education I have heard frequently from our supervising Faculty about the challenges in providing an accurate assessment of Resident performance, largely due to a lack of awareness of the expected progression of competence, based on their level of training. The new Competency based system will emphasize measurable and observable skills and performances, and a much greater level of transparency for the learner, another commonly identified barrier to accurate assessment in our current system. The RCPSC has proposed stages in a Competency Framework. Within each, there will be expected milestones that the trainee must meet to move to the next stage of training, eventually leading to a set of EPA’s (Entrustable Professional Activities). We can think of EPA’s as tasks that you would entrust a learner to do independently.

I have spoken to many of our Faculty, who have expressed concerns regarding activities within the current system of training that pulls residents away from front line clinical activities, and concerns that our curriculum does not reflect current needs of practicing physicians. We can say with confidence that in a Competency Framework we will have a comprehensive curriculum that supports independent practice, as outlined in the proposed stages of training, and places the greatest emphasis on what the Resident “Does” as reflected at the top of Miller’s “pyramid of clinical competence”. Another common concern in the current system is the well known dictum “Failure to Fail”, truly multifactorial, but driven heavily by an assessment system that is time based rather than performance based. These are a few key principles that strongly support a transition to a Competency based framework.

I know that many of you have questions about timelines in the rollout of the “Competency By Design” (CBD) framework. The RCPSC had identified a number of programs as early adopters, which includes Core Internal Medicine as part of the second cohort scheduled to start in 2015 and expected to fully integrate a competency framework in the design and delivery of a curriculum, as well as assessment, by the end of 2017. I am part of the Core Internal Medicine Program Director’s Working group that has already made significant strides in defining the expected milestones and EPA’s in Core Internal Medicine and fitting them into the new stages of the Competency Framework. I hope to share this with our Faculty and Residents in the coming months.

Finally, I wish to highlight that there are challenges in implementing a CBD framework. We will need to modify our academic curriculum to align with the expectations of Competency Training. A
CBD framework has significant impacts on Faculty resources and time, with a greater expectation for directly observed skills and performance. The Royal College is developing tools to support the implementation, including the necessary development of an e-portfolio where residents and faculty will document milestones and EPA’s.

I intend to develop a Faculty and Resident Working Group on Competency Based Training that will have subcommittees focusing on Faculty Development, curriculum design, and finally, assessments. I am confident that the final product in a Competency Framework will support a physician training framework that is flexible and accountable and best meet the needs of our patients. I look forward to your input and engagement in this next critical development in Residency Education.

Best Wishes,

Shariq Haider
Director Internal Medicine Residency Program
McMaster University
Upcoming GIM AFP Research Grant competition:

There is $30,000 available for this year’s competition, with a maximum budget of $15,000 per project.

Depending on the number of applications and the budgets requested, we anticipate funding 2 to 3 projects.

Applicants are required to submit an electronic copy (single pdf file) of a complete application package by email to Gail Laforme (laformeg@HHSC.CA) by 5:00pm EST, Monday, December 14, 2015.

Please contact the Division Research Coordinator, Dr. John You, with any questions: jyou@mcmaster.ca
Publications by GIM AFP members (April 2015 - September 2015):

**Effectiveness of test-enhanced learning in continuing health sciences education: a randomized controlled trial.**
McConnell MM, Azzam K, Xenodemetropoulos T, Panju A.

**Perioperative anticoagulant management in patients with atrial fibrillation: practical implications of recent clinical trials.**
Tafur A, Douketis JD.

**Perioperative Bridging Anticoagulation in Patients with Atrial Fibrillation.**

**Screening for Occult Cancer in Unprovoked Venous Thromboembolism.**

**Bleeding, Recurrent Venous Thromboembolism, and Mortality Risks During Warfarin Interruption for Invasive Procedures.**
Clark NP, Witt DM, Davies LE, Saito EM, McCool KH, Douketis JD, Metz KR, Delate T.

**Perioperative Management of Dabigatran: A Prospective Cohort Study.**

**New oral anticoagulants versus vitamin K antagonists for treatment of acute venous thromboembolism: do they really increase the incidence of myocardial infarction?**
Liew A, Piran S, Douketis J.

**Syncope and Driving.**
Guzman JC, Morillo CA.

**Development of a Multidimensional Additive Points System for Determining Access to Rheumatology Services.**
White D, Solanki K, Quinsey V, Minett A, Tam G, Doube A, Naden R.
An analysis of protocols and publications suggested that most discontinuations of clinical trials were not based on preplanned interim analyses or stopping rules.

Strategies for effective goals of care discussions and decision-making: perspectives from a multi-centre survey of Canadian hospital-based healthcare providers.
Roze des Ordons AL, Sharma N, Heyland DK, You JJ.

'Talk to me': a mixed methods study on preferred physician behaviours during end-of-life communication from the patient perspective.
Abdul-Razzak A, Sherifali D, You J, Simon J, Brazil K.

Virtual colonoscopy, optical colonoscopy, or fecal occult blood testing for colorectal cancer screening: results of a pilot randomized controlled trial.

Video decision aids to assist with advance care planning: a systematic review and meta-analysis.
Jain A, Corriveau S, Quinn K, Gardhouse A, Vegas DB, You JJ.

Completion and Publication Rates of Randomized Controlled Trials in Surgery: An Empirical Study.

Attitudes towards evaluation of psychiatric disability claims: a survey of Swiss stakeholders.

CONSORT extension for reporting N-of-1 trials (CENT) 2015 Statement.

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Corticosteroid Therapy for Patients Hospitalized With Community-Acquired Pneumonia: A Systematic Review and Meta-analysis.

A practical approach to evidence-based dentistry: VIII: How to appraise an article based on a qualitative study.

Cost-effectiveness analysis of dabigatran and anticoagulation monitoring strategies of vitamin K antagonist.
Carles M, Brosa M, Souto JC, Garcia-Alamino JM, Guyatt G, Alonso-Coello P.

Handling trial participants with missing outcome data when conducting a meta-analysis: a systematic survey of proposed approaches.

Review Suffered From High Risk of Selection Bias, and Misinterpreted Prior Findings.
Ebrahimi S, Busse JW, Montoya L, Carrasco Labra A, Guyatt GH.

Adherence to mechanical thromboprophylaxis after surgery: A systematic review and meta-analysis.
Craige S, Tsui JF, Agarwal A, Sandset PM, Guyatt GH, Tikkinen KA.

Trials on stress ulcer prophylaxis: finding the balance between benefit and harm. Response to Krag et al.
Deane AM, Guyatt GH.

The fragility of statistically significant findings from randomized trials in spine surgery: a systematic survey.
Evaniew N, Files C, Smith C, Bhandari M, Ghert M, Walsh M, Devereaux PJ, Guyatt G.

Spencer FA, Prasad M, Vandvik PO, Chetan D, Zhou Q, Guyatt G.
Optimal Strategies for Reporting Pain in Clinical Trials and Systematic Reviews: Recommendations from an OMERACT 12 Workshop.
J Rheumatol. 2015 May 15. pii: jrheum.141440. [Epub ahead of print]

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Everything you ever wanted to know about evidence-based medicine.
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Carrasco-Labra A, Brignardello-Petersen R, Glick M, Guyatt GH, Neumann I, Azarpazhooh A.

Hypnosis/Relaxation therapy for temporomandibular disorders: a systematic review and meta-analysis of randomized controlled trials.

Although not consistently superior, the absolute approach to framing the minimally important difference has advantages over the relative approach.
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Comparison between the standard and a new alternative format of the Summary-of-Findings tables in Cochrane review users: study protocol for a randomized controlled trial.

Primum non nocere and challenging conventional treatment.
Deane AM, Guyatt GH.

Chaudhry H, Foote CJ, Guyatt G, Thabane L, Furukawa TA, Petrisor B, Bhandari M.
Foote CJ, Chaudhry H, Bhandari M, Thabane L, Furukawa TA, Petrisor B, Guyatt G.

A practical approach to evidence-based dentistry: VI: How to use a systematic review.
Carrasco-Labra A, Brignardello-Petersen R, Glick M, Guyatt GH, Azarpazhooh A.

Decision aids for localized prostate cancer treatment choice: Systematic review and meta-analysis.

Quality of evidence is a key determinant for making a strong GRADE guidelines recommendation.
Djulbegovic B, Kumar A, Kaufman RM, Tobian A, Guyatt GH.

Why West Africa rejected donation of Chinese medicine for treating Ebola recommended by Chinese government?
Zhang Y, Zhang Y, Guyatt GH.

Women's Values and Preferences for Thromboprophylaxis during Pregnancy: A Comparison of Direct-choice and Decision Analysis using Patient Specific Utilities.

Siemieniuk RA, Guyatt GH.

A practical approach to evidence-based dentistry: V: how to appraise and use an article about diagnosis.
Brignardello-Petersen R, Carrasco-Labra A, Glick M, Guyatt GH, Azarpazhooh A.

Which Surgical Treatment for Open Tibial Shaft Fractures Results in the Fewest Reoperations? A Network Meta-analysis.
Foote CJ, Guyatt GH, Vignesh KN, Mundi R, Chaudhry H, Heels-Ansdell D, Thabane L, Tornetta P 3rd, Bhandari M.

Guideline panels should not GRADE good practice statements.
Guyatt GH, Schünemann HJ, Djulbegovic B, Akl EA.
A systematic review of contemporary trials of anticoagulants in orthopaedic thromboprophylaxis: suggestions for a radical reappraisal.
Chan NC, Siegal D, Lauw MN, Ginsberg JS, Eikelboom JW, Guyatt GH, Hirsh J.

David Lawrence Sackett, MD, MSc (Epidemiology), 1934-2015.
Haynes RB.

Efficacy of Hospital at Home in Patients with Heart Failure: A Systematic Review and Meta-Analysis.

Interventions for Enhancing Adherence to Antiretroviral Therapy (ART): A Systematic Review of High Quality Studies.

Technology-mediated interventions for enhancing medication adherence.

An Unusual Case of a Composite Pheochromocytoma With Neuroblastoma.
Steen O, Fernando J, Ransay J, Prebtani APH.

Physical Activity Patterns Among Resident & Staff Physicians in Hamilton Teaching Hospitals.
Steen O, Prebtani A.
CJGIM 2015; 10: 39-33

The 2015 Canadian Hypertension Education Program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.
Daskalopoulou SS, Prebtani A. et al.
Can J Cardiol. 2015 May; 31(5):549-68.


Intake of saturated and trans unsaturated fatty acids and risk of all cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies.
European Reference Networks and Guideline Development and Use: Challenges and Opportunities.
Morciano C, Laricchiuta P, Taruscio D, Schünemann H.
Public Health Genomics. 2015 Jul 23. [Epub ahead of print]


Probiotics for the prevention of allergy: A systematic review and meta-analysis of randomized controlled trials.

Towards a framework for evaluating and grading evidence in public health.

Akl EA, Kahale LA, Schünemann HJ.

The use of Bayesian networks to assess the quality of evidence from research synthesis: 1.
Stewart GB, Higgins JP, Schünemann H, Meader N.

Management of pancreatic cysts in an evidence-based world.
Moayyedi P, Weinberg DS, Schünemann H, Chak A.
The role of Cochrane reviews in informing international guidelines: a case study of using the Grading of Recommendations, Assessment, Development and Evaluation system to develop World Health Organization guidelines for the psychosocially assisted pharmacological treatment of opioid dependence.