Resident Doctors of Canada

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Competency-Based Medical Education in Canadian Residency Programs: Mitigating Risks and Enhancing Strengths

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CBME in Canada

- Competency-Based Medical Education (CBME) is becoming a reality nationally and internationally
  - Transition from strictly time-based training
  - Need to demonstrate competence through ‘milestone’ achievement
- CanMeds 2015 and The Royal College of Physicians and Surgeons of Canada’s Competence-by-Design (CBD) project
  - Medical Oncology and Otolaryngology in 2017
  - Gradual implementation over next decade
- The College of Family Physicians of Canada’s Triple C Curriculum
  - Comprehensive, Continuity, Centred in Family Medicine

Methodology

- PubMed search
  - **Query:** *Medical residency OR graduate medical education AND competency-based medical education AND 2010-2015*
  - **Results:** 720 articles cross-referenced for relevance
  - Abstracts screened for relevance leading to 64 short-listed works
- Key paper on CBME (Frank et al. 2010) was cross-referenced identifying 21 additional articles
- Additional 18 papers of relevance identified through CFPC
- In total, 103 articles served for literature review

Four Key Themes

- Transition to CBME
- Curriculum Design
- Assessment and Promotion
- Resources

Transition to CBME

- A number of lessons are described that promote successful implementation of CBME (Carraccio, 2013):
  - A need for standardized language
  - Direct observation in assessment
  - Development of meaningful measures of performance
  - Desired outcomes as the starting point for curriculum development
  - Dependence on reflection in the development of expertise
  - Competent clinical systems as the required learning environment for producing competent physicians

Transition to CBME – Barriers

- The most commonly identified barriers (adapted from Malik, 2012):
  - Lack of time
  - Lack of faculty support
  - Resistance of residents, low organizational priority
  - Lack of funding/Inadequate salary support for administrators
  - Inadequate knowledge of competencies

Transition to CBME – For Action

- A clear, robust and comprehensive transition strategy/framework for faculty development
- A standardized language for CBME
- Faculty development, resident empowerment and early education as a key part of the transition
  - Establish CBME champions and coaches who can mentor and guide
- Collaboration, coordination and information exchange between local and national planning efforts and among programs

Curriculum Design

- Key Questions:
  - Will the curriculum be beneficial for trainees?
  - Will trainees be available to participate in curricula and provide care without lengthening service hours?
  - How are residents in traditional training programs affected?
  - Who should establish and validate curricula?

Curriculum Design

- Training that reflects future practice
  - Through Milestones and Entrustable Professional Activities (EPAs) that are well designed and valid to ensure competency
- Real-time feedback
- Clear expectations
- Self-directed learning
  - Through simulation opportunities, facilitated cases, research activities
- Accountability, flexibility, and learner-centredness
  - Individual focus, training design to reflect dynamic learner needs
- Hierarchical skills development

Curriculum Design – For Action

- Training requirements and service expectations must be clearly defined
- High thresholds for achievement continue to be developed in a manner that does not over-burden faculty and residents
- Discrete milestones and EPAs should reflect future practice, avoid reductionism
- Programs must ensure a sufficient variety and depth of clinical exposure to meet necessary milestones and attain EPAs
- Novel approaches to service scheduling and delivery should be considered to ensure equity among residents regardless of whether they are in traditional or CBME training cohorts
- As evidence of CBME curricular approaches is limited, continuous quality improvement must occur

Assessment and Promotion

- Increased reliance on Direct Observation and Global feedback
  - Assessment fatigue
- Not all competencies are created equal
  - No single tool will sufficiently evaluate all competencies
  - Common tools fail longitudinally
- Who is ultimately responsible for promotion?
  - PD? Committee? College certification?
- Exam timing and content
  - Reflective of stage of training?

Assessment and Promotion – Best Practices

- Method(s) adapts to environment and to skills being evaluated
- Multiple evaluators and assessment tools
  - 360 degree evaluation, formative feedback, guided self-assessment, regular face-to-face meetings, OSCEs
- Portfolios
  - Promotes self-reflection, cumulates evidence, teaches PBL skills
  - BUT - What goes in it? Who owns it? Who has access?
- Formative experiences and self-evaluation
  - Field notes

Assessment and Promotion – For Action

- Multiple assessment tools, enlist various assessors, adapt between learning environments
- A learning portfolio should track resident progress through a training program
  - Access/ownership of information defined and security ensured
- Residents requiring additional resources identified early
- Promotion and declaration of competency, independent of exams, should be the program's responsibility, preferably by committee
- Licensing and certifying examination content should accurately reflect stage of training and competency, regardless of timing

Resources

- Do programs and faculty in today's system possess the capacity to participate in a CBME model?
- Shift from their educational roots
- Increased time commitments required
  - More robust and frequent assessments, direct observation
- Limited resources for compensation
  - Provision of service and education
  - Unique and unexpected challenges
  - Considerable focus on providing faculty training needed

Resources – For Action

- Time demands for resident and faculty must be respected
- Adequate physical, human, financial and technological resources to support transition
  - Ongoing commitment of resources by programs and departments
  - Sufficient support for staff for required direct assessment
  - Find strategies to be cost-effective, including finding “lean” observation strategies

Thank you!
Any questions?

References available on request

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