Competence By Design

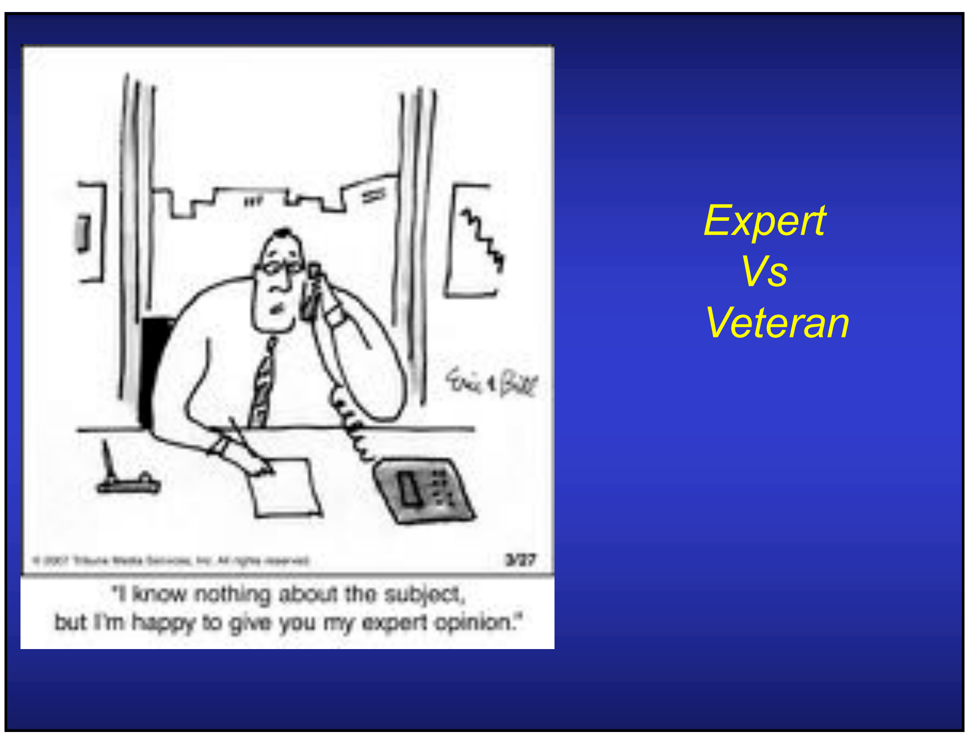
Or

Excellence By Accident?

Andrew E MacNeily

OBJECTIVES

1. Update on the Royal College CBD initiative
2. What it will mean for Residents
3. What it will mean for Faculty


"I know nothing about the subject,
but I'm happy to give you my expert opinion."
Expert
Vs
Veteran

"DON'T SHOOT ME
STARRING
Andrew MacNeily

Confirmed Launch Year	Confirmed Launch Year	Targeted Launch Year*	Targeted Launch Year*	Targeted Launch Year*	Targeted Launch Year*	Targeted Launch Year*
2017	2018	2019	2020	2021	2022	2023
Anesthesiology	Medical Oncology	Anatomical Pathology	Cardiology	Adolescent Medicine	Dermatology	Colorectal Surgery
Otolaryngology-Head and Neck Surgery	Forensic Pathology	Cardiac Surgery	General Surgery	Child and Adolescent Psychiatry	Diagnostic Radiology	Developmental Pediatrics
	Emergency Medicine	Gastroenterology	Obstetrics and Gynecology	Clinical Immunology and Allergy	Gynecologic Oncology	Endocrinology and Metabolism
	Surgical Foundations	Critical Care Medicine	Rheumatology	Forensic Psychiatry	Gynecologic Reproductive Endocrinology & Infertility	General Surgical Oncology
	Nephrology	General Internal Medicine	Neonatal-Perinatal Medicine	Geriatric Psychiatry	Infectious Disease	Interventional Radiology
	Urology	Internal Medicine	Nuclear Medicine	Hematological Pathology	Maternal-Fetal Medicine	Neuroradiology
		General Pathology	Physical Medicine and Rehabilitation	Hematology	Medical Biochemistry	Occupational Medicine
		Neurosurgery	Psychiatry	Neuropathology	Medical Genetics	Pain Medicine
		Pediatrics	Respirology	Neurology	Medical Microbiology	Palliative Medicine
		Radiation Oncology	Clinical Immunology	Orthopedic Surgery	Ophthalmology	Pediatric Radiology
		Geriatric Medicine				Thoracic Surgery

Competency Based Medical Education:

"An outcomes-based approach to the design, implementation, assessment and evaluation of a medical education program using an organizing framework of competencies. In CBME, the unit of progression is mastery of specific knowledge, skills, and attitudes and is learner-centered."

Frank, Med Teacher 2010;32:631-7

Competency Based Medical Education:

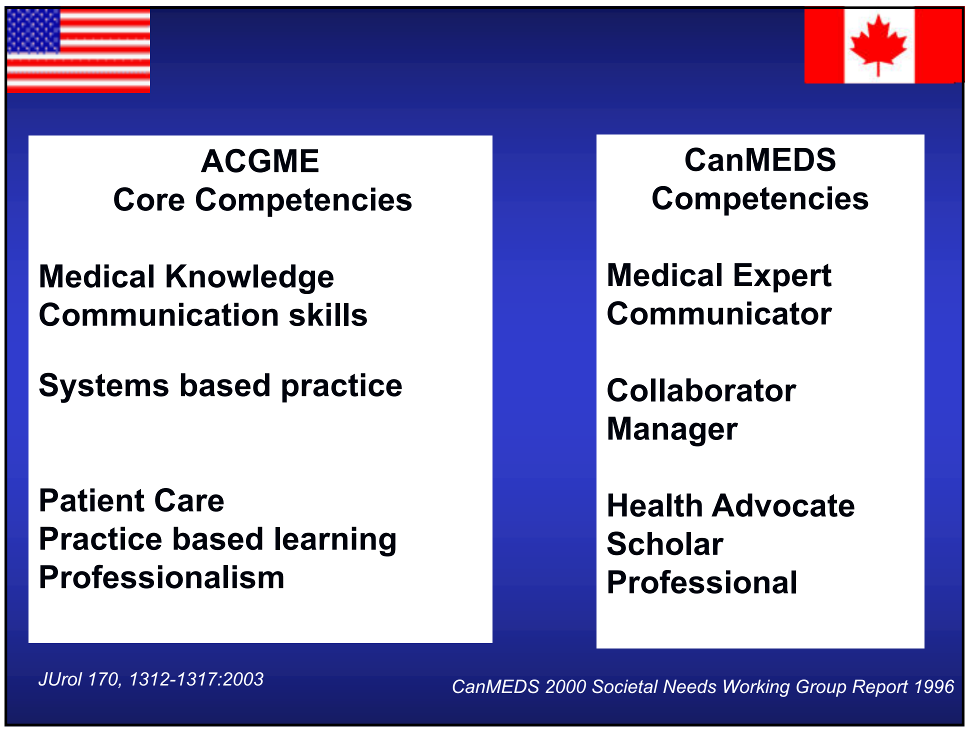
"An amalgam of educational theories and approaches that emphasize the outcomes of training."

Holmbe, Academic Med 2010;86 no.4

Competency Based Medical Education:

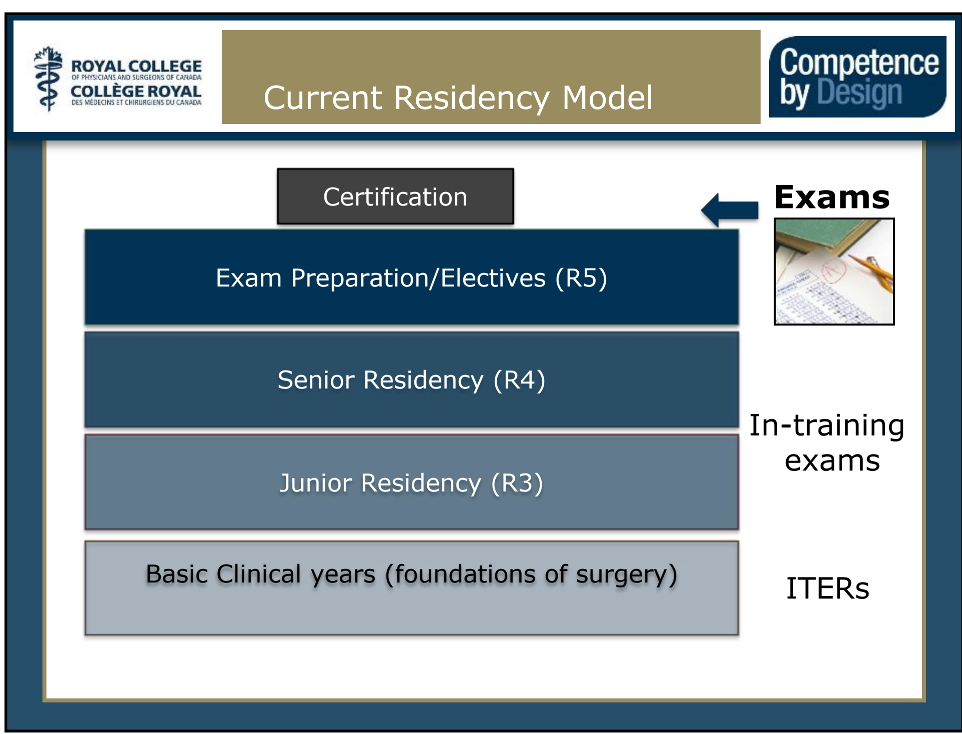
So….what are the outcomes???

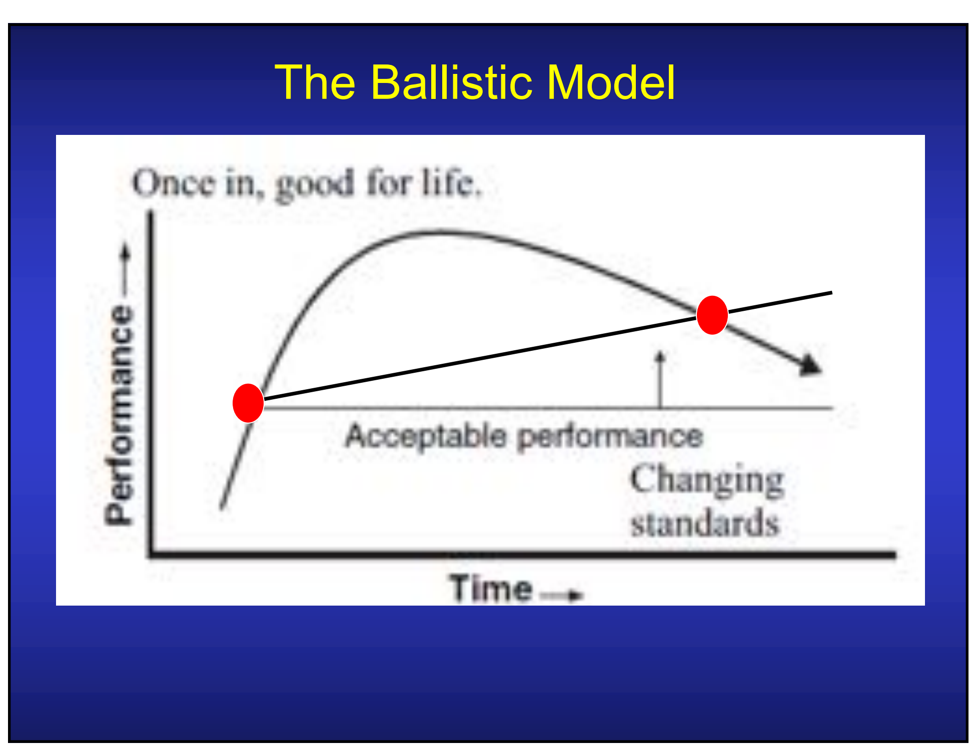
- *Acquisition of a body of knowledge*
- *Mastery of a set of skills*
- *Demonstration of a set of attitudes*

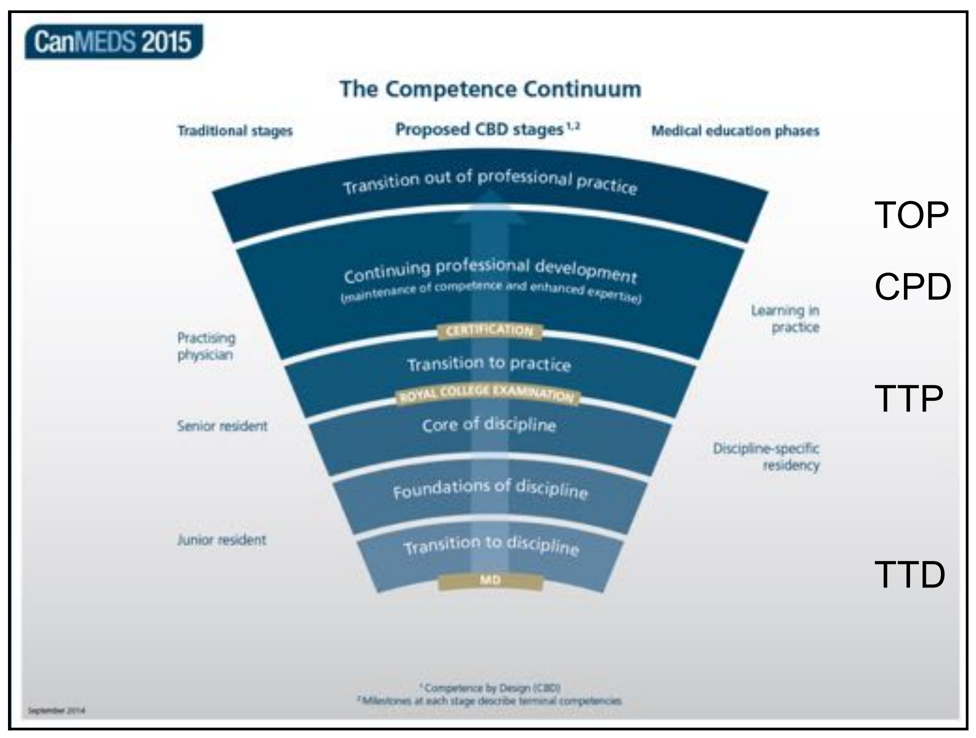


The CBD Plan (as I see it)

1) *Redefine the Stages of learning*
2) Develop Milestones (clinical and surgical)
3) Create Entrustable Professional Activities (EPAs)
4) Implement more robust assessments


ROYAL COLLEGE
OF PHYSICIANS AND SURGEONS OF CANADA
COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA
Current Residency Model
Competence by Design
Certification
Exams
Exam Preparation/Electives (R5)
Senior Residency (R4)
In-training exams
Junior Residency (R3)
Basic Clinical years (foundations of surgery)
ITERs


The Ballistic Model
Once in, good for life.
Performance
Acceptable performance
Changing standards
Time



- Move Urology exams up to fall of final year

Double cohort spring and fall of 2022
Louisa Drew Sam Spring ’22
Carms 2018 Cyrus Mark Davide - Fall ’22

- Move FOS exam to Fall of 2nd year

Double cohort spring and fall of 2019
Louisa Drew Sam Spring 2019
Carms 2018 Cyrus Mark Davide - Fall ‘19

The CBD Plan (as I see it)

1) Redefine the Stages of learning
2) *Develop Milestones (clinical and surgical)*
3) *Create Entrustable Professional Activities (EPAs)*
4) Implement more robust assessments

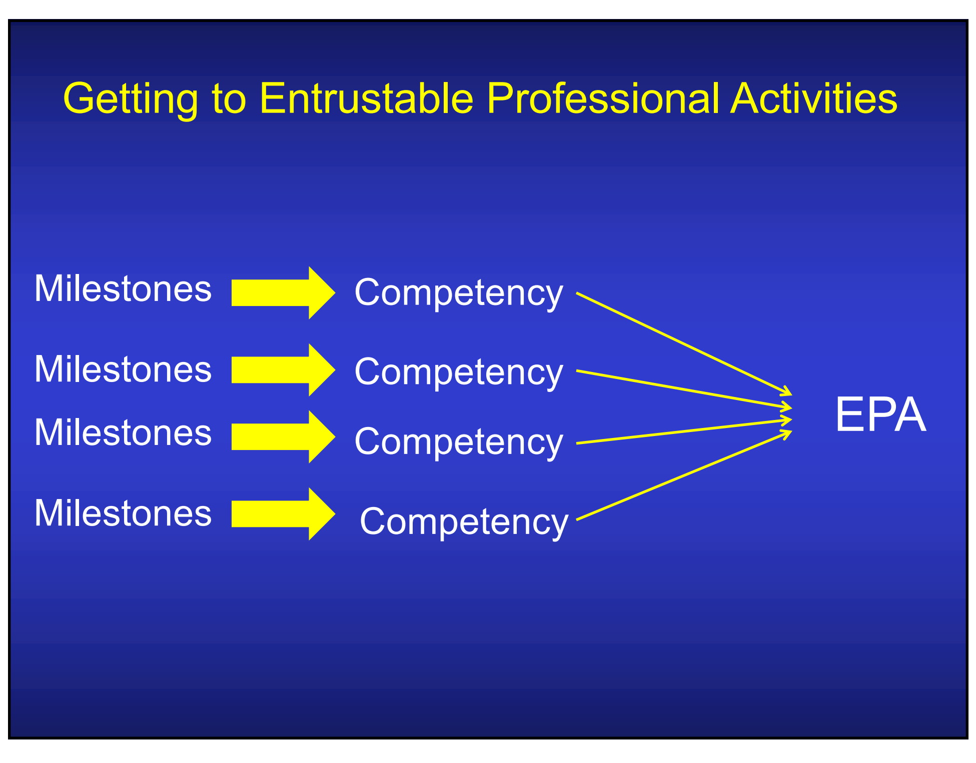
Milestones:

"Abilities expected of a physician or trainee at specific points in their development as professionals"

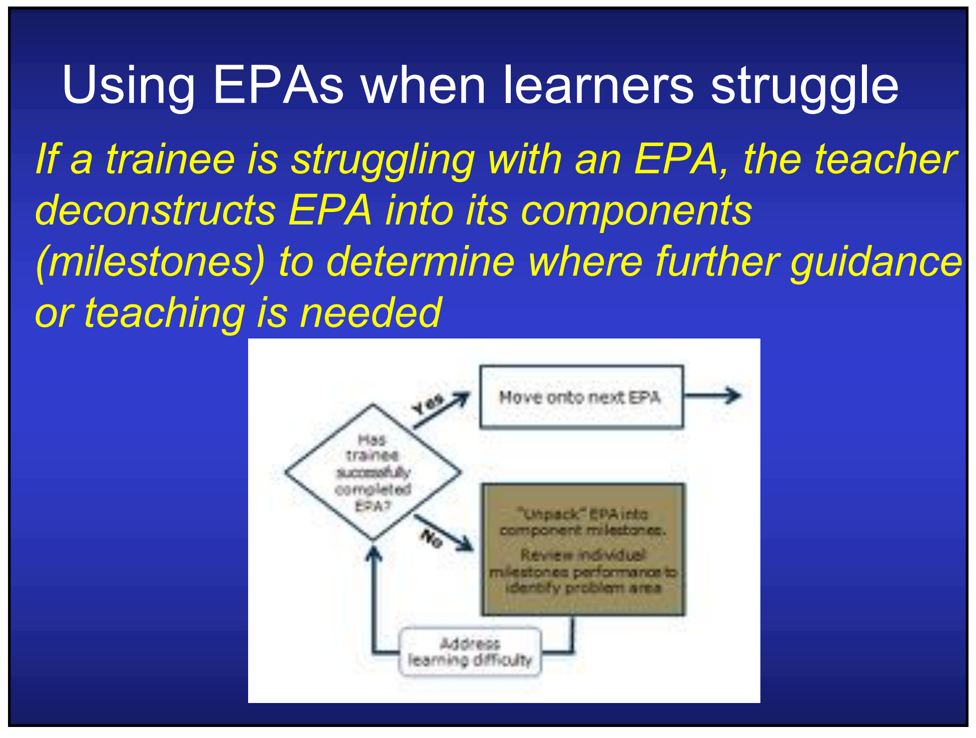
Based on CanMEDS roles

Entrustable Professional Activity "EPA"

A descriptor of work
A supervised task
A professional responsibility



EPA is typically a cluster of Milestones
MILESTONE #5
in progress
complete
MILESTONE #4
MILESTONE #3
MILESTONE #2
MILESTONE #1
EPA


Using EPAs when learners struggle
If a trainee is struggling with an EPA, the teacher deconstructs EPA into its components (milestones) to determine where further guidance or teaching is needed
Has trainee successfully completed EPA?
Yes
Move onto next EPA
No
"Unpack" EPA into component milestones. Review individual milestones performance to identify problem area
Address learning difficulty

Postgraduate Training Committee = Specialty Committee

"CBD committee" $_{n=32}$

Bill Gourlay Chris Nguan Niels Jacobsen Tom McGregor Eric Saltel Alp Sener Anil Kapoor Eddie Matsumoto Rob Stewart Jason Lee

Steve Steele Mike Leveridge Jim Watterson Matt Roberts Wes Kassouf

Mohamed El-Sherbiny Hugues Widmer Michelle Lodd

Frederic Soucy Ashley Cox

Andrew MacNeily Keith Rourke Paul Weckworth

Stuart Oake Diego Barrieras Marie-Paule Jammal

Frank Papanikolaou Andrea Lantz Hassan Razvi Rob Siemens

Sean Pierre Kevin Power

3 face to face meetings in Ottawa – 9 days
3 face to face meetings at annual CUA
4 conference calls

39 EPA's

- *TTD 4*
- *Foundations of Discipline 8*
- *Core of Discipline 21*
- *TTP 6*

New document suite for Urology

- CTR
- RTE

What we did…..

Anatomically break down common procedures and clinical scenarios into their components

i.e. milestones and EPA's

What we did…..

e.g.
EPA #11 Perform Laparoscopic Renal Surgery

1. Acquire laparoscopic access/port placement
2. Mobilize the bowel
3. Expose renal hilum
4. etc.

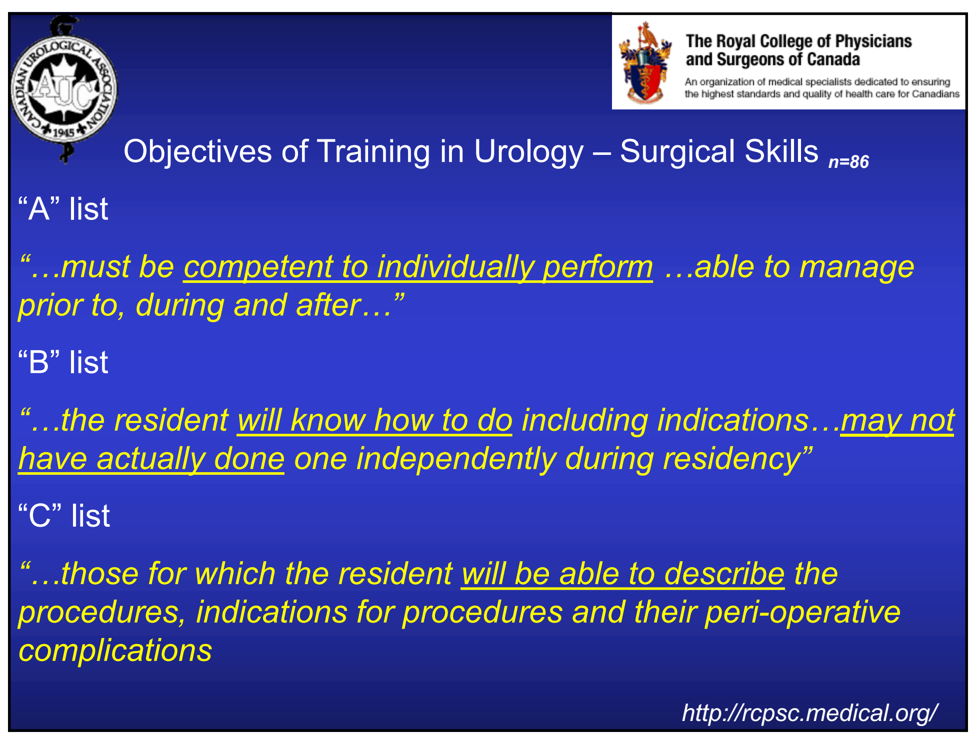
Core of Discipline: EPAs 5-10

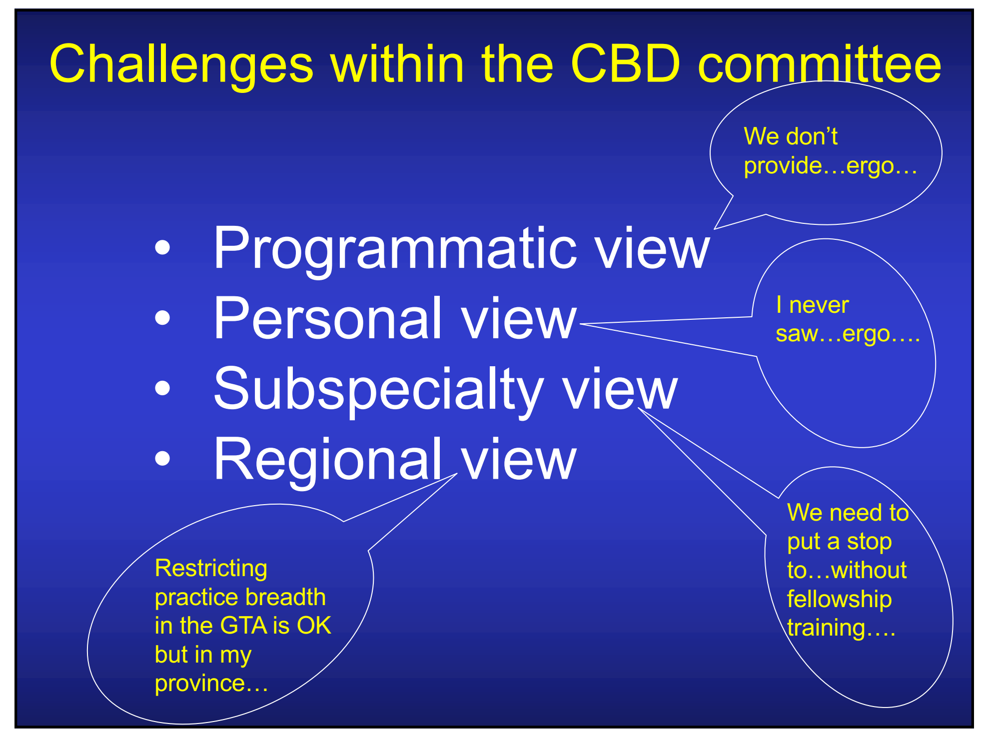
5. Performing TUR of bladder tumours
6. Performing TUR of the prostate
7. Performing stricture incision of lower urinary tract
8. Performing rigid ureteroscopy & litho of upper urinary tract
9. Performing retrograde flexible ureteroscopy/nephroscopy & litho of upper urinary tract
10. Performing perc nephroscopy & litho of upper urinary tract

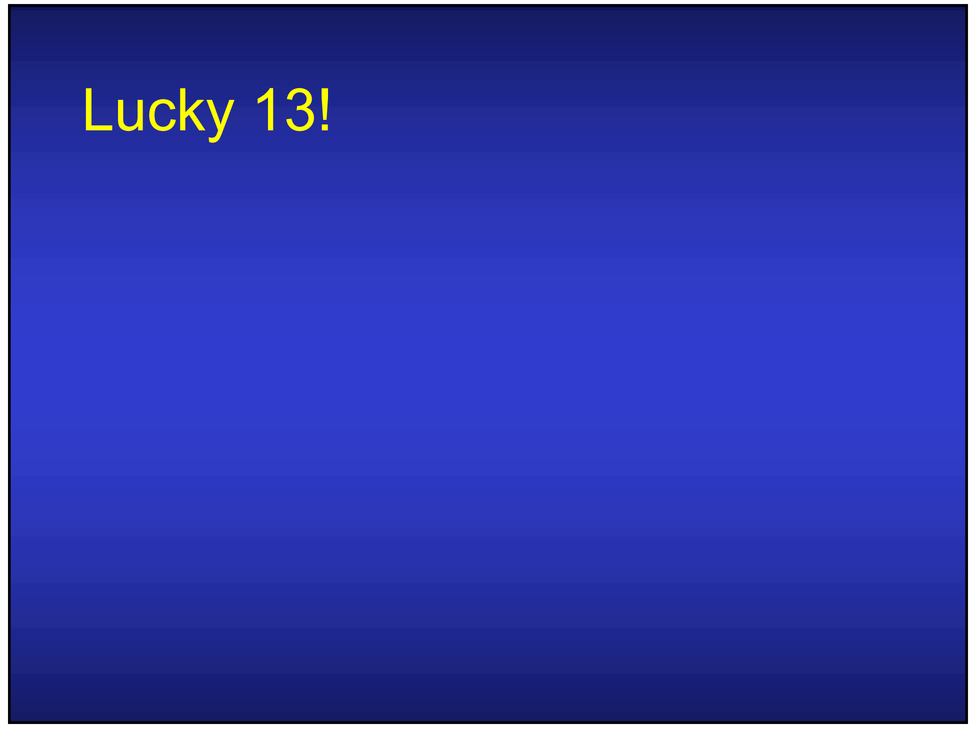
What we didn't do…..

Define a list of procedures

"…trainee must be competent to perform independently upon graduation…"

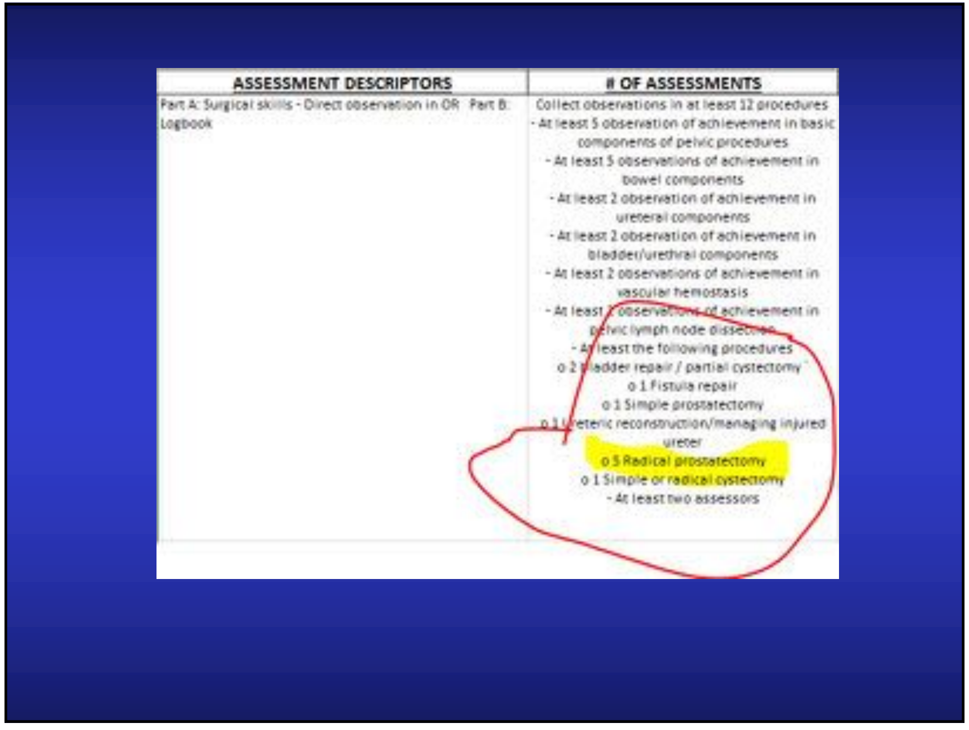

The Royal College of Physicians and Surgeons of Canada
An organization of medical specialists dedicated to ensuring the highest standards and quality of health care for Canadians
Objectives of Training in Urology – Surgical Skills n=86
"A" list
"…must be competent to individually perform …able to manage prior to, during and after…"
"B" list
"…the resident will know how to do including indications…may not have actually done one independently during residency"
"C" list
"…those for which the resident will be able to describe the procedures, indications for procedures and their peri-operative complications
http://rcpsc.medical.org/


Challenges within the CBD committee
Programmatic view
Personal view
Subspecialty view
Regional view
We don't provide…ergo…
I never saw…ergo….
We need to put a stop to…without fellowship training….
Restricting practice breadth in the GTA is OK but in my province…



EPA #	EPA	MILESTONE	STAGE	ROTATION
13	Performing the surgical skills of open pelvic procedures	**Basic components of pelvic procedures** ME 3.4 Demonstrate development of space of retzius and opening of endopelvic fascia **Bowel components** ME 3.4 Mobilize bladder and take down pedicles ME 3.4 Isolate a segment of small bowel (identify proper location, ensure adequate supply, division and restoration of bowel continuity with suture and/or stapler) ME 3.4 Suture and close off/repair lumen (enterotomy repair etc) **Ureteral components** ME 3.4 Perform ureteral reimplantation (into bowel or bladder) ME 3.4 Manage ureteral injury (Boari Flap or psoas hitch or ileal interposition) along with stenting **Bladder/urethral components** ME 3.4 Perform urethral and/or ureteral anastomosis (open or MIS) ME 3.4 Open and/or close the bladder (i.e. rupture/iatrogenic bladder injury, open cystolithotomy) ME 3.4 Perform bladder neck reconstruction **Vascular hemostasis** ME 3.4 Demonstrate approach and technique to control a bleeding vessel in the pelvis (ie DVC) **Pelvic lymph node dissection** ME 3.4 Perform pelvic lymph node dissection up to common iliac bifurcation **Quality components** ME 3.4 Demonstrate appropriate tissue handling of bowel, ureter, vessels, etc (non-traumatic, finesse, appropriate use of instruments) F 1.1 Recognize own surgical limitations and request for assistance ME 3.4 Demonstrate intraoperative judgement, fluidity of movement, forward progression ME 3.4 Identify other structures and assess for possible injuries (i.e. pleural, pancreatic, splenic injury)	F, C, TTP	Urology

ASSESSMENT DESCRIPTORS	# OF ASSESSMENTS
Part A: Surgical skills - Direct observation in OR Part B: Logbook	Collect observations in at least 12 procedures - At least 5 observation of achievement in basic components of pelvic procedures - At least 5 observations of achievement in bowel components - At least 2 observation of achievement in ureteral components - At least 2 observation of achievement in bladder/urethral components - At least 2 observations of achievement in vascular hemostasis - At least 2 observations of achievement in pelvic lymph node dissection - At least the following procedures o 2 bladder repair / partial cystectomy o 1 Fistula repair o 1 Simple prostatectomy o 1 Ureteric reconstruction/managing injured ureter o 5 Radical prostatectomy o 1 Simple or radical cystectomy - At least two assessors



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Who's doing what?

University	Open Radical	Robot Radical
Alberta	5%	95%
Sherbrooke	10% one surgeon	90%
Kingston	100%	0%
Ottawa	10% one surgeon	90%
Hamilton	10%	90%
Toronto	50%	50%
Western	50%	50%
BC	65%	35%
McGill	0%	100%
UdeM	25%	75%
Laval	50%	50%
Dalhousie	100%	0% No Robot
Manitoba	100%	0% No Robot
Average	44%	56%

Aug 2017

MAPPING A COMPETENCY-BASED UROLOGY CURRICULUM: AGREEMENT (AND DISCREPANCIES) IN THE CANADIAN NATIONAL OPINION

Keith Rourke, Andrew MacNeily

30 core procedures identified
But…
Disagreement between community and academic

radical cystectomy
open radical prostatectomy
open simple prostatectomy
open pyeloplasty
perineal urethrostomy

Can Urol Assoc J. 2016 10(5-6):161-166

The CBD Plan (as I see it)

1) Redefine the Stages of learning
2) Develop Milestones (clinical and surgical)
3) Create Entrustable Professional Activities (EPAs)
4) *Implement more robust assessments*

T-Res (finally)

- Fully funded by CUA next 5 years
- National data upon which to base decisions
- Resident engagement with CUA
- Mandatory case logs for periodic promotion

e-portfolio (almost)

Currently being populated with Urology EPA's
Royal College APP ready in April?
Assessment tool for UBC & others
Mandatory Assessments by teachers @ point
Portfolio reviewed by *competence committee*
Portfolio necessary for periodic promotion
Continuum with MOCERT

Competence Committee:

- Reports to the RTC
- Monitors the progress of each resident in achieving milestones & EPAs
- Synthesize results of multiple assessments
- Make decisions regarding progress & promo
- Monitor any learning/remediation plans

Competence Committee Membership:

- Chair is not the Program Director *(JSTM)*
- Program Director or delegate
- RTC members &/or other Faculty
- May include other members
  - *Other Program Director*
  - *Resident*
  - *Lay Public*

Competence Committee: Outcomes

- Meet twice per year (min) and as needed
- Review and make decisions about progress
  1. Progressing as expected
  2. Not progressing as expected
  3. Failing to progress
  4. Eligible for accelerated training
- Based on evidence available in ePortfolio and e-case logs

Competence Committee: Process

- Agenda planned in advance
- Primary reviewer
  - Responsible for comprehensive review
  - Present synthesis, may show relevant reports
  - Proposes a status
- Members discuss
- Vote on proposed recommendation
- Decision recorded (minutes)
- Decision discussed with resident

What This Means…..

- Residents must maintain e-portfolio
- Residents must maintain e-case logs
  - *Otherwise promotion thru stages not possible*
- Faculty must fully participate in evaluations
  - *Otherwise promotion thru stages not possible*
  - *Otherwise accreditation status will slip*

"These new regulations will fundamentally change the way we get around them."

Challenges with implementation

- Nobody likes change (except a wet baby)
- Disagreement on core competencies
- Community University divide
- No uniform assessment tools
- Faculty development required
- Time consuming for Faculty
- Risk of evaluator fatigue

Some Questions to Ponder:

1. What's the role of simulation in CBD ?
2. *WTFU* with Queen's ?
3. What's the impact of AFC diplomas ?
4. Do we really need to change everything ?
5. Is CBD really that *transformational* ?
6. Will CBD make better Urologists?