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**UBC Faculty of Medicine  
MD Undergraduate Curriculum Renewal**

**Final Report of the Continuity Working Group  
For the Implementation Task Force on Curriculum Renewal**

**June 8<sup>th</sup>, 2011**

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## FRAMEWORK AND BACKGROUND

This framework which addresses the concept of continuity<sup>1</sup> in an undergraduate MD curriculum explores the concepts and implementation of continuity across four domains:

1. Continuity of patients
2. Continuity of teachers
3. Continuity of curriculum
4. Continuity of students

The model developed attends to these four domains while considering the important building blocks and success of the current curriculum. The model that we present here was developed by determining what curriculum structure would best support continuity of curriculum as well as continuity in the other three domains. The curriculum model that addresses continuity that we have developed should be considered a starting point and as such we hope that it will highlight issues that arise when one uses the lens of continuity to define a medical student's education. It is expected elements of this model will be modified as our group continues to work on the concept of continuity, as the work of other implementation working groups is reported and brought forward, as we consult more broadly with other stakeholders and as the implementation task force considers our group and other group's work. This curriculum model and document are "living" materials that will undergo further development, modification and improvement. This model is but a start and while it contains significant detail, it is the broad brush strokes and questions we raise that should be considered the important elements of this report.

The committee will continue to explore the concept of continuity and work with other task force groups. It is through this work and broader consultation with a larger constituency that the committee will come to a final recommendation that we hope will ensure medical graduates from UBC are able to continue to serve the health care needs of the people of British Columbia now and into the future.

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<sup>1</sup> NEJM 2007;365: 858-866

## METHODOLOGY

The Continuity Working Group developed its recommendations based on the Dean's Task Force on MD Undergraduate Curriculum Renewal Final Report May 2010<sup>2</sup> as well as a thorough review of the literature that included commissioned reports on Academic Learning Communities.<sup>3</sup> In addition, educational leaders at a small number of schools were contacted and interviewed. At all times committee members developing this approach to continuity sought out best practices of medical education as well as approaches and methodologies that were based in the evidence or attended to the expectation of future changes in both education and health care.

### Steps in adopting a continuity curriculum

1. Develop Guiding Statements: Vision, Mission, and Goals
2. Develop a continuity model of medical education that attends to the four domains of continuity in collaboration and agreement with
  - a. ITFCR and all working groups
  - b. Other stakeholders
3. Develop pilots
  - a. That will test the feasibility of key or challenging aspects of the continuity model
  - b. That will look for opportunities to create pilots that collaborate or build on the work of other working groups
4. Assess pilots and revise model
5. Revisit and revisit again the output of other working groups to redefine the model
6. Develop feedback loops for assessing the acceptability and effectiveness of curricular changes\*\*
7. Assist the ITFCR in developing an implementation strategy for the overall renewal of the curriculum in a stepwise and logical fashion\*\*

\*\*Not necessarily within the mandate of this committee

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<sup>2</sup> Dean's Task Force on MD Undergraduate Curriculum Renewal Final Report <http://cr.med.ubc.ca/resources/dtfc-final-report-and-appendices>

<sup>3</sup> Learning Communities in Medical Education: review for discussion. Report prepared by Jean Jamieson for the Council of Undergraduate Associate Deans. February 2009

## Procedures

The working group developed principles by which to assess our work and the recommendations of others as they related to continuity.

These principles are:

- We cannot teach all of medicine in medical school—we must establish what is core
- We must attend to continuity in all 4 domains—curriculum, patient, teacher and student
- The most important aspect of continuity is the experience that the student has
- Learning will be driven by clinical experiences—there can be no content without context
- Central to the acquisition of expertise is the opportunity for deliberate practice with multiple examples and feedback, both to facilitate effective transfer of basic concepts and to ensure an adequate experiential knowledge base
- We must build in systems to evaluate what we are doing (how will we know when we have been successful/unsuccessful—overall and specifically)

In order to address the recommendations of the Dean's Task Force on MD Undergraduate Curriculum Renewal Final Report May 2010 which called for the development of an Academic Learning Community (ALC) but to also ensure that all aspects of continuity were attended to, the continuity working group divided up into two subgroups—one of which worked on “blue sky continuity” and the other worked on the development of an ALC. The subgroups then reformed and amalgamated the work of both groups. Subsequent meetings focused on exploring the practicalities of implementing a curriculum that ensured continuity was attended to within the practicalities of our current funding and human resource envelop.

In order to ensure three important areas were attended to subgroups were again created to examine the implementation of the continuity experiences of learners interacting with patients, the sequencing of the segments of the curriculum and the role(s) of the title clinician.

## **GENERAL OVERVIEW OF OUR RECOMMENDATIONS:**

Using our social accountability framework and the exit competencies, a core set of learning material will be defined. The definition of core learning material will be driven by clinical presentations and clinical problems. Utilizing a spiral curriculum that allows teachers and students to build on previous knowledge in a deliberate manner when teaching and learning will allow students to revisit material in greater depth and breadth over the course of their undergraduate training. Learning will be situated in geographically based academic learning communities (ALC). Greater interaction of students with patients in the clinical setting will occur in the pre-clerkship years with students being attached to a number of patients that they will follow independent of their clinical setting. A longer clerkship will be developed that will be comprised of junior and senior clerkships. The clerkship will also be based in an ALC and will be primarily situated in one or two hospital settings. In this model greater integration of clinical clerkship rotations can occur over time which will result in the development of a type of integrated clinical clerkship. We have not considered the impact of these suggestions on the dentistry program and will be doing so in partnership with curriculum leaders from that faculty as we move forward.

## CONTINUITY OF CURRICULUM

### **Preamble:**

The Future of Medical Education in Canada (FMEC)<sup>4</sup> and the Carnegie Reports (Educating Physicians: a call for reform of medical school and residency)<sup>5</sup> both highlight the importance of defining core—the essential competencies that a student must have to graduate from medical school. Defining core will be critical to ensuring a curriculum that can be organized around a continuity framework. Core will be based on important clinical problems and common clinical presentations. The distinction is that common clinical problems are key clinical problems that reflect what every graduating medical student should be able to understand and care for (pneumonia, appendicitis etc.) while clinical presentations are symptom complexes that every graduating medical student should have an approach to (shortness of breath, abdominal pain etc.). Thus clinical problems and presentations will be used to define the learning that occurs in the curriculum. By recognizing the developmental stages of a learner, the curriculum can be deliberately sequenced. What we are asking students to learn must be as clear to students as it is to the curriculum designers so that we can all be sure as to what is expected at each stage of the curriculum. A curriculum must build on and be linked to that which has come before it and will be linked to what will come after it. Critical to this learning is the concept of context and since we are primarily training students to be clinicians, we must ensure that we provide students multiple opportunities to learn in multiple clinical contexts (both real and virtual) to ensure maximal knowledge and skill attainment.<sup>6</sup> Thus the clinical milieu (both clinical problems and presentations) will drive all learning in a curriculum that attends to continuity in order to build a foundation that will continue to residency and beyond. Each phase of this curriculum will be lead by a clinician and basic scientist working in partnership throughout all years of the MD program.

### **Core Elements:**

- Material will be organized around clinical presentations and clinical problems
- A spiral curriculum will allow students to revisit material in a planned sequential matter building depth and breadth
- Increasing complexity with each phase (basic scientist and clinician co-lead each phase)
- Decreased cueing over time of students to the type of clinical problem, clinical presentation they are exploring
- Increased integration of clinical problems and clinical presentations over time
- Greater clinical experiences in the pre-clerkship years
- All learning will be situated in a geographically based academic learning community (ALC)

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4 The Future of Medical Education in Canada (FMEC): A collective vision for MD education. The Association of Faculties of Medicine of Canada 2010

5 Cooke, Irby and O'Brien Educating Physicians: A Call for Reform of Medical School and Residency. Jossey-Bass San Francisco USA 2010

6 Medical Education 2005;39:419-427

## Teaching Methods

Broadly we have explored constructs, learning methods and delivery methods in an effort to attend to building the students' attitudes knowledge and skill. These learning methods and delivery methods will result in a change in the manner in which students learn and will focus on having faculty interacting with students when there is value to this interaction but will also allow students to learn independently when a faculty presence is not required.

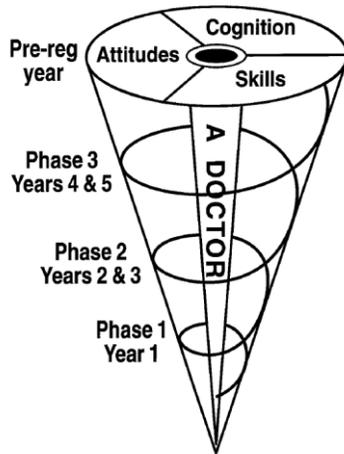
<b>Attribute</b>	<b>Underlying Construct</b>	<b>Primary Method of Learning/Delivery</b>
Attitudes to practice	Identity formation	<ul style="list-style-type: none"><li>• Guided clinical experience</li><li>• Group discussion</li><li>• Reflection</li></ul>
Knowledge to practice	Evidence base	<ul style="list-style-type: none"><li>• Independent learning (online, printed)</li><li>• Large group learning (lectures)</li><li>• Medium group learning (CPC)</li><li>• Small group learning (PBL)</li><li>• Clinical experiences</li></ul>
Skills to practice	Technical and problem solving	<ul style="list-style-type: none"><li>• Instruction</li><li>• Simulation</li><li>• Group discussion</li><li>• Clinical experience</li><li>• Reflection</li></ul>

## Design

The essential design elements of a curriculum that heeds continuity are twofold: a spiral design that builds sequentially on previous knowledge that is organized around themes or threads that run throughout the four years of instruction. The spiral design utilizes a system where each subsequent phase or segment of activity builds on the knowledge skills and attitudes that have been learned and explored previously but with increasing complexity at each step. Thus students learn material attending to the breadth of medicine but do so in a repetitive fashion as the scaffold of learning around a topic is strengthened. This learning will progressively be done in the context of all subject areas as integration increases through the curriculum. This model of learning is opposed to a deep learning around a topic or body system and then moving on to a new topic or body system without revisiting that material until the clinical clerkship. Our curriculum model was developed to explore a number of key concepts in the literature but the elements presented here could be adopted into a number of different curricular designs.

Figure 1

A graphic representation from Harden and Stamper<sup>7</sup>



Key elements of the spiral curriculum are:

- Topics are revisited
- There are increasing levels of difficulty
- New learning is related to previous learning
- The competence of students increases as they progress

Key Values of the spiral curriculum are

- Reinforcement
- A move from simple to complex
- Integration
- Logical sequence
- Beyond recall—in spiral curriculum students are encouraged to go beyond factual recall to an application of knowledge and skills
- Flexibility may be enhanced by providing clear entry points for students with increased competence

One such organizing structure could be based on UBC's current blocks (with some modification). At the beginning of medical school there would be some form of transition activity. This transition activity would help transition students in two realms: to the study of medicine and to the practice of medicine. A three week block will allow a number of experiences to be created that will help students transition to the educational model in medicine which is often much different than they have experienced in their pre-medical training. We must be explicit with our overall educational plan and methods as we cannot expect that students will understand our plan just from experiencing it. A jigsaw puzzle is much more difficult to construct when one does not have a picture of what one is trying to construct. We must give the students our picture of education.

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<sup>7</sup> Medical Teacher, Vol. 21, No. 2, 1999

In addition to transitioning students to our educational model, we propose to transition students to the practice of medicine in this three week block. Students will attend clinical practices during this time. They will be guided to observe these practices in purposeful ways and will be brought together to discuss and reflect on what being a doctor is. Having this transition early on will help motivate and guide student learning in an appropriate manner.

We propose that there not be a PRIN block in this model. Students will learn in the clinical context as defined by clinical problems and clinical presentations and this context will define all basic science learning. In this way the basic science underpinnings of the practice of medicine are relevant to the body system or group of body systems the students are studying. For example, a clinical presentation of a fever and rash in a child will be used to drive the basic science learning that will be intimately linked to the clinical and behavioral learning to support basic knowledge attitude and skill development around fever, immunology, child development, uncertainty, etc. For students that feel deficient in some major area of knowledge (i.e. biological, behavioral,) online modules will be available to provide further background to this block that focuses on basic/less complicated material. This early phase based on clinical contexts will cover many of the same areas that are currently covered in PRIN but will be organized around body systems. An example of the types of weekly rotations of body systems that would flow after the transition block are presented in table 1. Thus students would spend one week focusing on one body system.(Table 1) Some 12-14 weeks later the student would revisit these areas again but broadening and deepening their understanding and will now be able to draw on all body systems that they have build a founding in during this second phase of learning. Thus basic science and clinical medicine will be experienced and re-experienced multiple times in the curriculum building depth and breadth while always attending to the clinical context.

Alternative groupings of topics could give rise to lumping of some body systems: cardio/resp, growth & development/repro, blood/endo/fluids and electrolytes, etc. The advantages of having some blocks lumped together would allow greater integration early on the curriculum. The disadvantage of early integration is that too much integration may not allow the students a scaffold upon which to build their learning—an appropriate mix of cueing and integration must be reached to serve student learning.

Table 1 Schematic of phase 1-4

1. Cardiac
2. Respiratory
3. Fluids and Electrolytes
4. Blood and Endo
5. Repro
6. Growth & Development
7. MSK and Skin
8. Gastrointestinal
9. Brain
10. Behaviour

In the above example, each 10 week block of learning will be called a phase. Each phase would consist of 10 different weeks that focus on a different body system each week. Following this 10 week phase there would be an additional 2-4 weeks of supplemental time to allow assessment, remediation and supplemental experiences. (Figure 2) Thus while core is attended to, excellence in a number of areas is required and will occur in this supplemental period. This supplemental period will also help attend to providing flexibility in the curriculum

Figure 2 example of a phase

Phase 2 (simple pathology) plus supplemental	
Plus supplemental	
10...	 
9	
8	
7	 ALC
6	
5	
4	
3	
2	
1 Cardiac builds on previous	

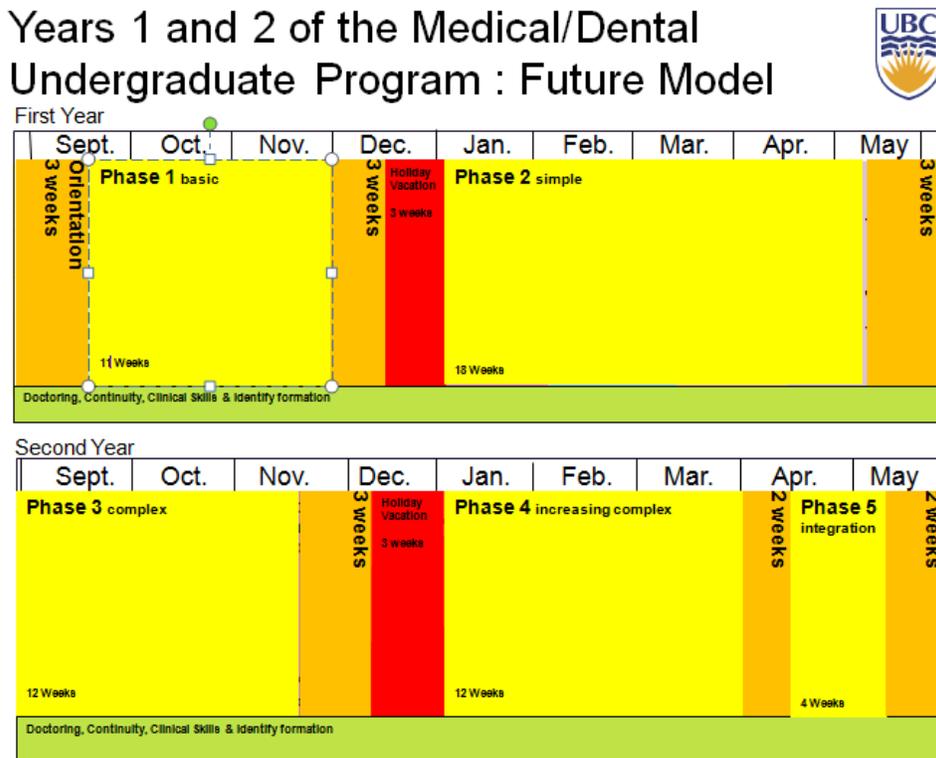
The organizing umbrella for each phase (which contains a 10 week segment of body systems) would be the level of complexity of material. Early material would provide knowledge and skills acquisition at the basic level with basic attitudinal, behavioral and population health exploration while material that followed would be of a more complicated nature

For example (see figure 3):

- Phase 1 basic anatomy/physiology, basic behavioral medicine, basic population health, basic identity formation issues
- Phase 2 simple anatomy/pathophysiology, simple behavioral medicine, simple population health, basic identity formation issues
- Phase 3 more complicated anatomy/pathophysiology, more complicated behavioral medicine, health care system, professionalism issues
- Phase 4 complex anatomy/pathophysiology, complex-behavioral medicine, complex professionalism, complex health care system and advocacy
- Phase 5 complete integration phase where both case presentations and case problems are not block based and the anatomy, physiology, behavioral medicine are completely integrated

Thus the concept of basic-simple-complicated-complex could be an organizing structure for the level of activity at each phase and would ensure a homogenous approach to learning in each phase while building depth and breadth throughout the curriculum.

Figure 3- Proposed model of year 1 & 2



The final phase 5 would be an integration phase with students not being cued to what body system they were learning but instead would be presented with common presenting complaints that would require them to draw on all previous knowledge.

An additional organizing structure would be the formal integration of threads that would be appropriately inserted into each week in the appropriate body system and would be sequenced utilizing the umbrella increasing complexity that each phase allows. Thus each of these important themes or topics could be appropriately attended to in a sequential manner integrated into the appropriate place in the body system and sequenced within the spiral curriculum. (Table 2)

Table 2

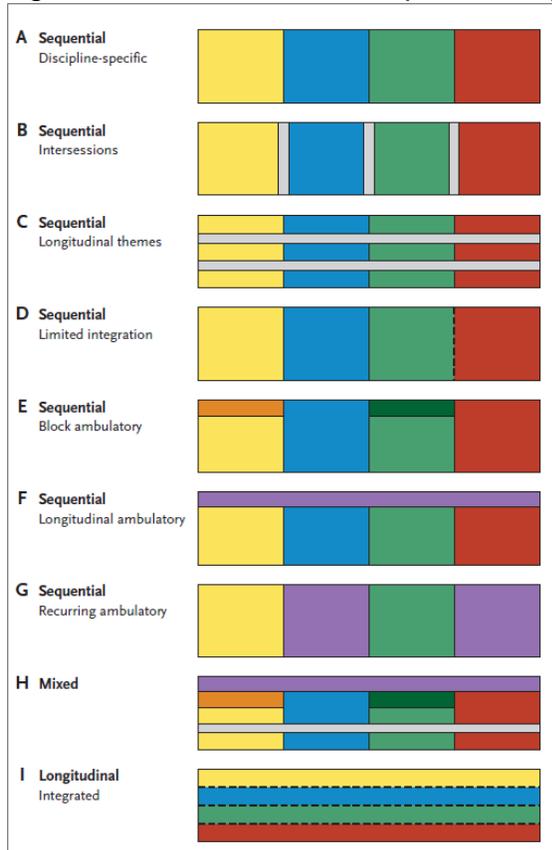
<b>Possible Threads</b>	
1.EBM	2.Communication
3.Pharmacology	4.Oncology
5.Anatomy	6.Diagnostics/Labs
7.Histology	8.Behaviour
9.Genetics	10.Psychology
11. Infectious diseases	12. Community
13.Ethics	14. Social Construction of Health
15. Pathology	16. Marginalized groups
17. Physiology	18.....
19. Health promotion	

The clinical clerkship will be modified so that it can draw upon the essential elements of the integrated clinical clerkship (ICC) as the committee recognizes an ICC experience is not feasible for all medical students in our program. Creating opportunities for continuity clinical experiences during the entire clinical clerkship and ensuring students have the opportunity to apply and explore their learning in a number of contexts will be critical to ensuring a clerkship that attends to continuity. A junior and senior clerkship will foster continuity of curriculum. Group discussion every 1-2 weeks within the clerkship where key clinical topics are covered will also support continuity. The provision for horizontal electives (one afternoon every week or two to attend to areas of interest or attention) will also foster continuity. It is expected that 2 half days of release time in the clinical clerkship will be required to support continuity (group clinical discussion, identity formation, longitudinal clinical horizontal electives—not all will occur each week). In addition, having students spend time in integrated groups (mixture of students from various clerkship rotations) where they can participate in learning activities will allow students to draw on all their knowledge gained from past clerkship rotations (e.g. an integrated case based discussion with students from across the clerkship on shortness of breath) would allow students to reinforce previous learning and build a stage for future learning.

Over time, greater integration of the clinical clerkship blocks could be developed. This integration could be addressed by amalgamating a number of the block rotations into logical integrated larger blocks—see figure 5 for models. This will be more likely to

occur if we organize the clerkships around an academic learning centre (ALC) that is geographically based.

Figure 5—models of clerkship continuity



We propose that the clerkship will start in May at the end of second year and will contain a 3 week break and a one week clerkship transition/integration period—see figure 6. This transition/integration would occur within a student’s ALC and would support the transition to the clerkship. Because this model would have greater clinical experiences in the hospital and surrounding community in the pre-clerkship period, the transition could focus on providing students a transition rather than an orientation. Junior clerkship rotations, an elective block and a one month vacation will fall over the first 9 months (May to Jan). Following this block there will be a senior clerkship that will run from Feb to August. In this block there will be 4 blocks of senior clerkship, two blocks of vacation and 4 blocks of electives. Thus there is no philosophical break between third and fourth year only a break between junior and senior clerkship. This model will allow continuity of curriculum in the clerkship by supporting junior and senior clerkships where topics are revisited and clerks are given greater responsibility.

Figure 6-Sample clerkship rotation

2 <sup>nd</sup> YR							3 <sup>rd</sup> Year							Year 4				
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov
Vac/Orient	Surg	Elec	Peds	Psych	OG	FP	Vac	Med	Elec	SC	SC	Vac	SC	SC	Vac	Elec	Elec	Elec

The remainder of year 4 will contain preparation for residency (PR) activities, electives, CaRMS interviews and LMCC preparation time—see figure 7.

Figure 7 current PMP without modification

Dec	Jan	Feb	Mar	April	May
PR	PR	CaRMS	Elective	Elective	LMCC

**Things We Are Considering**

- What sorts of clinical presentation and clinical problems can be used as an organizing structure to define pre-clerkship training
- What different models of blocks (i.e. cardio or cardio-resp-renal) could be used to organize the repeating segments of year 1 and 2
- What should the interface between this curriculum and a geographic ALC be
- What is the appropriate mix between junior and senior clerkships

**Next Steps**

- Discuss model with the clerkship committee
- Seek input from PRIN and FMED directors as well as other curriculum working groups
- Discuss Year 4 and PMP

## CONTINUITY OF PATIENTS

### **Preamble:**

As the medical care of common medical conditions moves increasingly into ambulatory settings, medical students whose education occurs in tertiary care settings are exposed to an increasingly narrower spectrum of illnesses and a more sub-specialized range of therapies. Longitudinal patient care allows students to form relationships with patients and these relationships can in turn allow them to be motivated to learn and care. These longitudinal relationships also allow students to see illness and care evolve over time rather than through the retrospective lens of a patient history. The size of the medical school at UBC and the availability of community ambulatory preceptors preclude all 1152 medical students in all four years having a permanent attachment to a generalist ambulatory physician. Alternative models to a strict 1:1 apprenticeship model of learning will be needed to ensure an adequate continuity of patient experience for medical students. Students will spend time with specialists and generalists working with clinicians while attending to the objectives of the each phase but this experience are not expected to attend to continuity of patients to a great degree as these experiences will be driven by the clinical context in which the students are learning (i.e. body system block and phase of complexity)

### **Core Elements:**

- Attachments with clinicians in a student's ALC every week
- Students will be assigned 3 patients and will be given the opportunity to attend patient appointments for care and diagnostic tests

Continuity of patients is a critical element of medical education and allows students to see the context in which patients live and experience illness. This context is different than a hospital ward or a physician's office. For every 800 patients experiencing illness in a one month period in the community, only 113 will visit a primary care office and less than one will be admitted to an academic health sciences center<sup>8</sup>. Given this fact, we must construct situations where students have the opportunity to understand a patient's illness and wellness that are not dependent on hospitals or even community physician's offices. It is unlikely that even if we could provide a continuity experience of patient care to over 1100 students in all four years with these students attending 600-1100 offices a week we could guarantee that these students would see the same patient each week. In addition, students' experience of the health care system from a provider point of view is much different from an understanding the structure and function of the health care system from an end user's perspective.

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<sup>8</sup> N Engl J Med. 2001;344(26):2021-5

Some of the specific benefits of continuity of patients include<sup>9</sup>:

- Awareness of effects of family dynamics on management
- Opportunity for integrating physical and psychosocial management
- Being able to make the distinction between longitudinal and episodic care
- Appreciating the importance of the doctor/patient relationship
- Awareness of preventive aspects
- Seeing the use of community resources
- Seeing the benefits of home visits
- Participating in the team approach

Thus by attaching students to patients in the community, students can learn about both the continuous experience of health and illness as well as understand an ongoing experience with the health care system. An additional outcome is that students report that these experiences inspire them to a sense of idealism and advocacy<sup>10</sup>. Thus by seating the continuity experience with the patient, this experience is not dependent on the medical system but instead is dependent on the relationship between the patient and student. Patients will be selected by clinicians in the ALC. Students will be matched to a patient ***with a chronic disease, a geriatric patient and a patient who is pregnant.***

### Things We Are Considering

- Consider virtual patients in the pre-clerkship years that belong to an extended family that can be revisited over time
- Explore technology supports to allow students to follow their assigned real patients throughout the medical system
- Explore safety issues of having students attend patient clinical visits and nursing homes
- Explore flexibility that will be required to have students attend these patients (attendance, role of student's in directing attendance, etc.)
- Explore administrative supports to having volunteer patients organized around an ALC

### Next Steps

- Meet with Casey et al to discuss the feasibility of adopting this model of continuity of patients at UBC<sup>11</sup>
- Pilot attaching a small group of students to 3 patients to assess the feasibility of this model

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<sup>9</sup> Can Fam Physician 1981;27:831-833

<sup>10</sup> Acad Med 2009; 84:844-850

<sup>11</sup> Acad Med. 2009; 84:597-603.

## CONTINUITY OF TEACHERS

### **Preamble:**

The hallmarks of excellence in clinical teaching include<sup>12</sup>:

- Medical/clinical knowledge
- Clinical and technical skills/competence, clinical reasoning
- Positive relationships with students and supportive learning environment
- Communication skills
- Enthusiasm

There are a large number of teachers at UBC involved in medical education. While this commitment is laudable and is not seen in other settings, this dispersion of teaching to so many individuals has led to fragmentation of content and the relationships between students and the faculty. Creating a cadre of master teachers (named “title clinicians” at this time) would allow the additional development of a small number of teachers who would take leadership roles in directing and caring for the learning that occurs in an ALC. The Title Clinicians will be the key individuals who will support and mentor student learning for their group and their ALC. Other teachers working within their ALC would be expected to teach fewer students and thus have the opportunity to develop stronger relationships and greater understanding of their students (and visa versa), thus enriching the teaching and learning experience for both parties.

### **Core Elements:**

- Each Title Clinician would be assigned to a group of 8 first year medical students and would continue to be that groups’ Title Clinician for the next 4 years
- At full implementation, each Title Clinician would have a group of 8 students in each year of the curriculum (32 students in total)
- The types and frequencies of interactions will vary depending on the stage of medical student training, this model will provide the opportunity for significant continuity of Faculty for the students
- A total of 45 Title Clinicians would be needed across all sites and all years.

**The roles and responsibilities of the title clinicians are as follows:**

#### **Related to the Students:**

- 1) Teaching
  - a. Classroom-based (small group learning activities, seminars)
  - b. Bedside teaching (clinical skills, clinical correlation, etc.)

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<sup>12</sup> Acad Med. 2008; 83:452–466

- 2) Advising:
  - a. Career
  - b. Academic
  - c. Creating Mentorship opportunities
  - d. Debriefing of clinical activities in clerkship
  - e. Stress management
- 3) Clinical Experiences:
  - a. Within their own practice
  - b. Within other areas of medicine
- 4) Evaluation (in a formative capacity only to ensure relationship not adversely affected):
  - a. Reviewing portfolios
  - b. Setting goals at the beginning of courses and clinical rotations and reviewing evaluations afterwards
- 5) Remediation:
  - a. Providing opportunities for remediation

#### **Related to the Title Clinicians Themselves:**

- 1) Faculty Development:
  - a. Participation in continuing professional development activities to improve their skills as a title Clinician
- 2) Debriefing:
  - a. Participate in regular meetings as a group of Title Clinicians to discuss their experiences, teaching pearls, etc and bond as a group.
- 3) Journal Club:
  - a. Participate in regular meetings to discuss medical education-related literature
- 4) Administrative:
  - a. Take on positions required by the ALC's

#### **Related to the Faculty of Medicine**

- 1) Curriculum Development
- 2) Curriculum Review and Program Evaluation
- 3) Membership on relevant UME committees
- 4) Educational Leadership:
  - a. In UME
  - b. In home Department, PGME, etc
- 5) Role-modeling:
  - a. In UME
  - b. In home Department, PGME, etc
- 6) Faculty Development:
  - a. Facilitating relevant continuing professional development activities
- 7) Leading or participating in research related to medical education

- 8) Test creation
- 9) Facilitating earlier identification of students who are struggling
- 10) Educational innovation

The degree to which the Title Clinicians will become involved in each of these potential activities will depend on the overall vision of the program (teaching vs advising/counseling, etc). We envision that the roles and responsibilities of the Title Clinician will also vary depending on the year of training the students are in. In order to maximize continuity, we believe that the students should remain with the same Title Clinician throughout their time in medical school

**Title Clinicians are physicians with the following attributes:**

- 1) Demonstrated track record of providing excellence in education
- 2) Outstanding clinical skills and acumen
- 3) Exemplary communication skills
- 4) Commitment to setting and meeting high expectations for themselves and their learners
- 5) Ability to adapt to new situations rapidly
- 6) Desire to help medical students become the best physicians possible
- 7) Infectious enthusiasm for the practice of medicine

**Other desirable attributes that are not mandatory include:**

- 1) Completion of advanced training in teaching theory or techniques
- 2) Experience conducting medical education research
- 3) Experience in education administration

Any physician can apply to become a Title Clinician. However, those from a Generalist background (i.e. Family Medicine, General Pediatrics, General Surgery, Internal Medicine, etc.) may be more comfortable in these positions given the breadth of content areas that will be encountered. We feel that because of certain requirements of the position, including being able to function and teach in the clinical environment, providing career advising and being able to serve as a clinical role-model, it would be necessary to have physicians fulfill this role. However, it is very important to note that the establishment of these positions does not preclude the creation of a parallel job description

To maximize the opportunities for this program to succeed, we will have to create the widespread belief that the position of Title Clinician is one of honour and a great recognition. Face validity will be key to this program, thus making the program attractive (because of what they get to do, who their colleagues are, how the faculty and general university community respects them and how they get remunerated) will allow the best educators to be recruited, the reputation of the program to grow and the creation of an environment of educational excellence.

### **Academic Learning Communities and Title Clinicians:**

The structure of the Academic Learning Communities using the framework of the Title Clinician model is presented in figure 8. Based on this structure, there will be a total of 9 ALCs (6 in the VFMP and 1 each at the distributed sites). Each ALC would have 4 groups consisting of 8 students per year and one Title Clinician. There will also be a College Head for each ALC. This individual would be responsible for administrative leadership for the College and also provide “relief” for the other Title Clinicians within their ALC (sick days, vacation time, etc). Based on this model, we would require 36 Title Clinicians and 9 College Heads (or a total of 45 Title Clinicians) for a fully operational system.

### **Remuneration:**

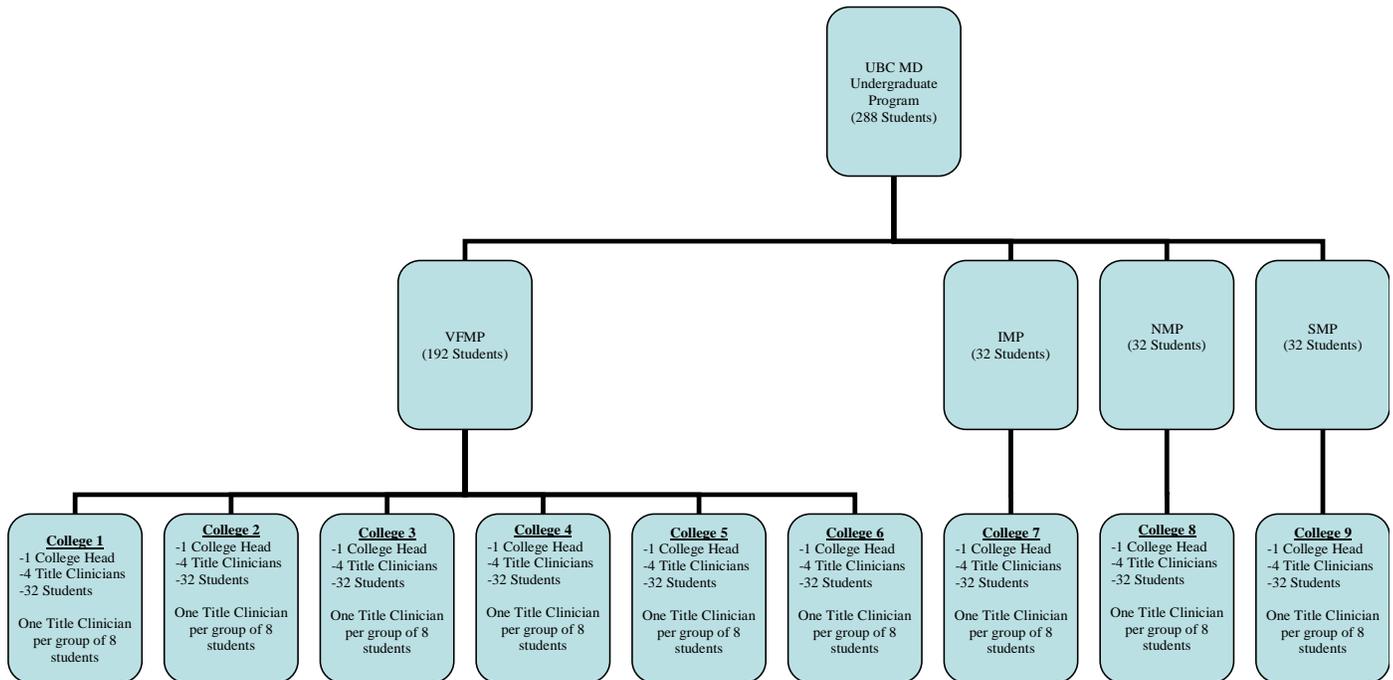
It is essential that the position of Title Clinician be associated with adequate protected time for a number of reasons:

- 1) Ensure adequate time to undertake the required activities of the position
- 2) Ensure that there is time to allow for an adequate bond to develop between the Title Clinician and their group members
- 3) It will form part of a package that will allow for initial recruitment of the highest quality individuals for these positions
- 4) Title Clinicians will undoubtedly have a significant impact not only on the students with whom they work, but also the medical education environment at UBC in general. In addition, a significant amount of resources will be invested in each of these individuals during their training and first few years in the position. We need to ensure that the job is fun and minimize the chances that they burnout, become cynical or quit. Adequate time to perform their duties will be an important aspect of this.

Therefore, we propose that the position of Title Clinician come with the equivalent of 0.5 FTE remuneration and protected time. We are not proposing that these positions be considered part of the typical tenure or grant-tenure Professorial Ranks of the University, but are simply using this descriptor for familiarity sake. Title Clinicians will be required to maintain or acquire an academic or clinical appointment with a University-affiliated Department.

The exact level of remuneration is beyond the scope of this proposal. The only recommendation we make is that the salary be in keeping with other similar positions in the administrative and research-streams where a significant proportion time is being dedicated for non-clinical activities (i.e. in the neighborhood of \$50,000-\$80,000 per annum).

Figure 8-ALC Structure as it relates to Title Clinicians



### Things We Are Considering

- What support structures would be in place for the title clinician (administrative, psychological, vacation/sick time issues, etc?)
- Further explore and define how title clinicians will enhance continuity for students, the curriculum
- Further define the roles and responsibilities of the title clinician<sup>13, 14, 15, 16, 17</sup>
- Explore how title clinicians will be evaluated (benchmarks and outcomes)
- Explore the mentor Vs evaluator role of the title clinician

### Next Steps

- Meet with University of Calgary individuals who have recent experience with setting up and defining a master teacher program in the faculty of medicine
- Meet with NMP and IMP to explore their impressions of a title clinician and how their curriculum leaders currently fill this role (ie year 3 clerkship director)
- Consider a pilot at one of the distributed sites

<sup>13</sup> APM Perspective Part 1 <http://www.im.org/Publications/APMPerspectives/Documents/august2010perspectives.pdf>

<sup>14</sup> APM Perspective Part 2 <http://www.im.org/Publications/APMPerspectives/Documents/september2010perspectives.pdf>

<sup>15</sup> APM Perspective Part 3 <http://www.im.org/Publications/APMPerspectives/Documents/october2010perspectives.pdf>

<sup>16</sup> APM Perspective Part 4 <http://www.im.org/Publications/APMPerspectives/Documents/november2010perspectives.pdf>

<sup>17</sup> APM Perspective Part 5 <http://www.im.org/Publications/APMPerspectives/Documents/december2010perspectives.pdf>

## CONTINUITY OF STUDENTS

### **Preamble:**

Medical education is as much about learning to talk and act like a doctor as it is about learning the content of the medical curriculum. Medical education is about both the acquisition of skills and knowledge as well as the development of a professional identity. Identity “is not something that one can have or not; it is something that one does”(p 5)<sup>18</sup>. Thus identity and its formation/transformation is both a cognitive and social process. Entering medical students have professional identities as undergraduate students. Through medical school they are acculturated into the profession of medicine by both the apparent and unapparent curriculum primarily driven by their cognitive and social interactions with teachers, peers and patients. There is strong evidence that the experience of medical school erodes compassion and patient centeredness.<sup>19</sup> Attending in a mindful and planned way to the continuous identity formation of medical students will be critical to the success of the curriculum, the profession and the patients they care for.

### **Core Elements:**

- Students will meet in their title clinician group every 2-3 weeks during all four years of medical school in sessions termed “identity formation”
- There will be guided as well as open space activities for students to explore and discuss with the title clinician their development as physicians

Utilizing the title clinician, students will meet in groups of eight once every 2-3 weeks throughout the four years of the curriculum to discuss a number of issues related to their experiences in medicine and what they see as will be expected of them in medicine. Open space will be provided for discussion as well as a professional curriculum will be developed. Having the title clinician facilitate these groups will ensure trust and understanding as well as care and oversight in the continuous development of students from medical school entry to graduation.

### **Things We Are Considering**

- What are some further aspects of identity formation that we need to attend to in order to produce a fully competent graduating physician
- What sorts of activities would support this initiative
- Can a title clinician provide this support while assessing the student in some areas

### **Next Steps**

- Meet with students to explore this concept further
- Pilot some voluntary open space session with medical students to address identity formation to assess feasibility

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<sup>18</sup> Jenkins R. Social Identity, 3rd edn. London, New York, NY: Routledge 2008;1–246.

<sup>19</sup> Medical Education 2010; 44: 662–673

## ROLE OF THE ALC

### **Preamble:**

Learning communities can<sup>20</sup>:

- Increase learner connectedness to their learning environment/ institution/ peers/ faculty
- foster social engagement among students
- promote collaborative learning
- emphasize intellectually complex learning environments

An academic learning community could support these and an additional number of activities as outlined above—continuity of teacher, patients, curriculum and students.

### **Core Elements:**

- Geographically based—for example
  - Prince George ALC
  - Victoria ALC
  - Kelowna ALC
  - Vancouver General ALC
  - Vancouver General ALC
  - Saint Paul's ALC
  - Royal Columbian ALC
  - Surrey Memorial ALC
  - Lions Gate ALC
  - Richmond General ALC
- Students would spend all 4 year associated with their ALC—all pre-clerkship teaching would occur in association with the ALC
- Clerkship would primarily be based at the ALC

We feel that an ALC will support many aspects of continuity. Continuity of teachers would be particularly supported by an ALC. A smaller cadre of teachers and clinicians would be involved in the teaching of their group of students—with 4 years at each ALC there would be a 128 students deployed at each of 9 sites. An ALC could also support continuity of patients by centralizing patient experiences in one setting as well as the ALC ensuring appropriate patient-student matching to address the continuity of patient experience. Lastly the ALC would support continuity of students by fostering students learning and working together in a smaller setting.

More specifically the ALC would foster and support:

- Peer mentoring— formal (identity formation) & informal
- Support identity formation activities
- Portfolio assessment

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<sup>20</sup> Acad Med. 2009; 84:1549–1556

- Teaching small groups
- Doctoring/DPAS teaching
- Interdisciplinary teaching
- Clinical skills teaching
- Provide clinical experiences
- Provide patients for continuity of patient experiences
- Clerkship experience
- Provide consistent faculty mentoring
- Provide guidance with residency application process
- Provide career advice
- A deeper understanding of the student and the ability to write reference letters (CaRMS) with impact
- Create an *esprit de corps* within the larger VFMP site by dividing up the class into smaller units

### **Things We Are Considering**

- Explore the concept of community ALC (hospital and surrounding community in providing educational experiences to students)
- Explore the positive and negative attributes of our current ALCs in Prince George and Victoria
- Impact of a student being placed in an ALC on CaRMS applications—ability to get the “right” person to write the best letter for a student’s application
- What is the ballpark cost of the ALC model
- What parts of the curriculum (small group learning, larger group learning, virtual learning, clinical skills, community clinical placements, clerkship, specific clerkship rotations, etc.) that might present challenges to the ALC model

### **Next Steps**

- Explore the technical, space, teacher and clinical capacity at the proposed ALC’s
- Consider initial steps where students could be partially placed in an ALC (an increased concentration of rotations in one particular location) to test the concept

## APPENDIX

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- University of Calgary
- University of Texas Southwestern Medical School
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