Pre-clerkship Clinical Curriculum Working Group

Summary of Key Elements of the “Practice of Medicine” component of the new curriculum for the UCSD SOM Retreat

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Committee Membership

- Charlie Goldberg (C), M.D. – Med
- Rusty Kallenberg (VC) M.D – Fam/Prev Med
- Kristin Bell, M.D. – Med
- Matt Brockwell, MS III
- Farshid Farrahi, MS IV
- Igor Grant, M.D. – Psych
- Eduardo Gruenvald, M.D. – Med
- Jamie Heinzen, MSIII
- Mark Kritchevsky, M.D. – Neuro
- Denise LeStrange, UGME
- Brian Lichtenstein, MS II
- Bruce Potenza, M.D. – Surg
- Jamie Resnick, M.D. – Repro Med
- Bob Ross, M.D. – Med
- Mounir Soliman, M.D. – Psych
- Sunny Smith, MD – Free Clinic/Fam/Prev Med
- Tomoko Tanabe, MD – Med
- Babbi Winegarden – Med Ed
- Peggy Wallace – PDC
Charges

- Plan consolidation of SBS and ICM into single augmented longitudinal curriculum focusing upon developing enduring skills of patient communication, physical examination, clinical reasoning, and professionalism.
- Define key elements of a problem- or case-based, interdisciplinary curriculum to run in the pre-clerkship years that will integrate temporally related elements of basic science and doctoring curriculum, as well as orphan topics such as health disparities, cultural competence, medical ethics, nutrition, etc.
Preamble

- The key components of a new *Practice of Medicine* curriculum are described below. It is designed to foster the development of first-rate clinical skills and promote integration with the other important elements of the preclinical years and beyond. Mentorship, continuity, early exposure to patient care and connection to community (within the SOM and beyond) are highlighted features. The material will be taught in a way that is both rigorous & “real world,” helping to create clinician-scientists who understand and value the interconnectedness of mind, body and science.
This curriculum is guided by the biopsychosocial frame of reference. Inherent in this model is the proposition that a person's health and illness express themselves at biological, psychological, and social levels of being. Events at these levels influence each other in a dynamic fashion so that, for example, a biological change [atherosclerosis] can modify mood, thinking, behavior and social functioning; behaviors such as tobacco smoking can precipitate biological changes that result in emphysema and heart disease; and mood disturbances such as chronic depression can lead to cardiac morbidity and mortality. Therefore, this curriculum is designed to afford students the opportunity to acquire the knowledge, attitudes, and skills that will equip them to evaluate medical information and plan treatment in a manner attentive to the biological, psychological, and social aspects of the person.
“Practice of Medicine”

**Course Vision:**

- To teach UCSD medical students the professional, interpersonal and clinical knowledge, skills and attitudes to:
  - deliver compassionate, effective, patient-centered health care of the highest quality;
  - and to be valued colleagues, committed to continuous quality improvement, on the many health care teams on which they will serve during their future careers.
Overview of Components

I. Longitudinal Small Groups
   “Doctor-Patient-Society”

II. Longitudinal 1:1 Clinical Experience
    “Ambulatory Care Apprenticeship”

III. Problem-oriented Case-Based Learning
    “Systems Integration”

IV. The Health Care System
Overview

Longitudinal Small Group (DPS)

Basic Clinical Skills - Communication, Adv Exam, Culture, Professionalism, Health systems
Multiple sessions x 3 mos.
1/2 day, q w

Case Based Learning

Biomedical – Psychosocial – Clinical Reasoning Objectives

Basic Science Curriculum

Ambulatory Care Apprenticeship
1/2 day, q o w
I. Longitudinal Small Groups

“Doctor-Patient-Society”

Small groups (8-10 students, 2 faculty-one medical and one psycho-behavioral) & 2 senior student "peer instructors"), meeting ½ day, every 1-2 weeks (would vary with goals). This same group would stay intact for the first 2 years of med school (and possibly through third yr. 401 PCCC)
I. Longitudinal Small Groups

“Doctor-Patient-Society”

Goals:

1. Mentoring, communication skills, evidence based medicine, physical exam skills, Dr-Pt. relationship, professionalism, ethics, cultural/community/environmental “contextual” issues, complementary/integrative medicine, health systems principles, etc.

2. The early focus (first few months) would be on working to establish a firm grounding in professionalism and basics of communication, interviewing and basic physical examination students would be “clinically functional” at a basic level early in their first year.

3. This group would also “keep track” of their longitudinal clinical experiences and professional development - & provide a forum for making use of “journaling/reflective medicine,” review of write ups/e-portfolio, ethical/professionalism issues, etc.
Key Elements:
1. Use of a dynamic and varied combination of learning activities including but not limited to: lectures, small group discussion, medium group discussion (LCs), case based learning; use of visiting sub-specialty expert leaders for specific sessions

2. Specific topics/themes will run longitudinally throughout the 2 years at various densities and with periodic reinforcement intended to advance students’ skills

3. Learning interviewing/examination skills on SPs and real patients with findings - linked to anatomy/physiology instruction and pathophysiology discussed in CBL cases
I. Longitudinal Small Groups
“Doctor-Patient-Society”

Key Elements:

4. Self-directed work in PDC with SPs/simulators and videotaping and review by peer partner*/group/facilitator/4th year trained student-instructors ⇐ reinforces learning feedback process

5. Small groups develop continuity relationships between students and between students and faculty – allows development of mentoring relationships and peer support group functioning; groups and faculty would be drawn from the same learning community – reinforcing the sense of belonging to a smaller home w/in the SOM; some learning tasks will be done in LCs

6. Reflective projects – based on journaling captured in e-portfolios (during apprenticeship) – help students develop self-awareness as they grow their professional identities
I. Longitudinal Small Groups

“Doctor-Patient-Society”

Evaluation:

1. Communication and physical exam OSCEs

2. Papers written by students about the topics covered & collected in educational portfolio

3. Peer assessment

4. Faculty evaluation of participation in Small Groups

5. Review of e-portfolios generated in apprenticeships
II. Longitudinal 1:1 Clinical Experience

“Ambulatory Care Care Apprenticeship”

With continuity provider in the Community (1/2 day, every 2 weeks) x 2 yr (? extending thru 3rd year/401 PCCC)

Goals:

1. Students continue to develop and enhance communication skills, history taking, physical & mental status exam → practicing in a real world environment with one-on-one mentorship by preceptor.
II. Longitudinal 1:1 Clinical Experience

“Ambulatory Care Care Apprenticeship”

Goals:

2. Understanding continuity of care by following a small group of patients/families throughout this experience - could include: home visits; periodic write-ups of their health issues; interactions with other medical care specialists, etc.

3. Participation in a real practice environment will provide opportunity for exposure to professionalism, ethical issues, clinical decision making (fodder for small group discussion - above), practice-based quality improvement and systems-based practice.
II. Longitudinal 1:1 Clinical Experience

“Ambulatory Care Care Care Care Care Care Apprenticeship”

Key Elements:

1. Each student paired with a practicing physician.
2. Prior to each week’s session, student and physician discuss learning objectives for the day, delivered via the Web (e.g. SOAP note, cardiac auscultation, MSK exam, communication skills) – a way to “standardize” the experience
3. Students work with physician during normal patient flow, with emphasis on the day’s teaching points – but taking advantage of anything that comes thru the door.
4. Use of an education portfolio where students could keep track of: "micro goals" achieved, areas to work on, case mix seen; also free space for reflection (e.g. about encounters that went well or were problematic, etc).
II. Longitudinal 1:1 Clinical Experience

“Ambulatory Care Apprenticeship”

Evaluation:

1. Preceptor evaluation

2. On-line self-exams; "free text" space for reflection and to capture info. Re: breadth of patient's seen

3. OSCEs, GOSCEs, SPs, real patient feedback

4. Longitudinal Small Group leaders will review e-portfolios, provide feedback, keep track of/monitor the overall experience
III. Problem-Oriented Case Based Learning

“Systems Integration”

Goals:

1. These cases would be largely focused on materials covered in the “basic science” thread w/ biomedical objectives/content of each case largely determined by the faculty responsible for that organ system.

2. Each case would also incorporate broader psychosocial aspects of the patient and caring for the patient care. This will provide a real world context for the “basic science” thread of the curriculum. Integrating these components should reinforce the notion that basic science & bio-psychosocial issues are intertwined and are best understood/appreciated when approached in a fashion which reflects their interconnectedness. Topics would include: aspects of ethics, culture, professionalism & communication (thoughtful overlap with longitudinal small group).
III. Problem-Oriented Case Based Learning
“Systems Integration”

Goals:

3. Normal growth and development components (from the current SBS component) will also be highlighted - achieved by using cases that are representative of life cycle (age, sex, etc).

4. Active teaching/learning of medical decision-making and clinical reasoning within context of the case.

5. Assessment of medical literature, evidence-based medicine, information management
III. Problem-Oriented Case Based Learning

“Systems Integration”

Key Elements:

1. Small group (8-10 students), case based, 2 faculty (clinician and basic scientist) – meeting up to several times/week for duration of specific case/unit (weeks to mos?).

2. The cases would require joint input from the “basic science” and “preclinical” faculty including psycho-behavioral experts.

3. Examination of SPs and real patients with findings linked to pathophysiology discussed in the case; could use visiting subspecialty expert leaders for these sessions - perhaps as the second faculty in the group who might join from and for the duration of each parallel BS course/section (depending on how BS is designed).

4. The groups would also be drawn from individual Learning Communities and could change at the end of the case or could be longitudinal over a semester (or longer).
III. Problem-Oriented Case Based Learning

“Systems Integration”

Key Elements:

5. Might incorporate other experiential components like undergoing clinical tests and procedures (stress tests, PFTs, etc.), keeping records (fingerstick BS, peak flow, BP records, physical activity, calorie counts, etc.)

6. Might also make cases more “real” by using SPs to introduce the case or creating scene setting videos that give a face to the clinician and patient. These could also highlight problematic interpersonal interactions, providing nidus for discussions about ethics, professionalism, communications, etc.

7. Use of physical exam simulators (e.g. abnormal heart sounds) to connect material w/real world pathology.
III. Problem-Oriented Case Based Learning

“Systems Integration”

Evaluation:

1. Written tests presented as a case with novel info. presented in stepped case format (essay-type answers) – for process

2. Other traditional test formats for content

3. Faculty (and peer) evaluation of group participation
IV. The Health Care System

3 hr/wk x 10 wk - possibly integrated into longitudinal small groups (“DPS”) + other

Goals:

1. Students gain familiarity with "systems thinking" and how such systems impact health care delivery in the United States.
2. Emphasis would be placed on learning via interacting with real systems, tackling real problems within those systems.
3. Integration with all three components of the Practice of Medicine curriculum
IV. The Health Care System

Key Elements:

1. Lecture (possibly in concentrated groups related to finance, access and quality themes of the current course)

2. Small groups - possibly incorporated into the DPS longitudinal small groups above with guest expert facilitators (from current IHCS course) or in larger group (Learning Communities) for "team-based" learning exercises

3. A quality improvement project by small groups involving systems-based learning could focus on an aspect of practice observed in students’ longitudinal ambulatory care apprenticeship offices
IV. The Health Care System

Key Elements:

4. Clinical outcome project (drawn from “own” patient panel in longitudinal office) in terms of compliance with HCM goals, chronic disease management goals, patient satisfaction, etc.

5. Community based project, partnering (where possible) w/UCSD and community programs. This could be home-based in a Learning Community, such that successful projects would be carried on w/in that LC over years. LC ownership would also provide “easy access” for students interested in early involvement in the community from time of entry into SOM.

6. Possible community projects/partnerships: Student Run Free Clinic, Border Health Education Network, PRIME program in for the under-served, etc.
IV. The Health Care System

Evaluation:

1. Written exam
2. Short-answer/essay exam for readings and lecture content (3 hr). This may be offered online to students during a timed session at the end of the unit.
3. Students are responsible as a group for creating a final presentation/write-up describing their project from start to finish.
4. Students present projects to the class at large in a poster session.
Basic Science
- Principles Ventricular fxn
- Electrical-Mech Coupling
- Pathophys of CHF
- Value of BNP

Using CBL As A Tool To Integrate Multiple Aspects of the Curriculum

Learning Community
- Culture and compliance w/care (won’t take meds or f/u)
- Ethical issues of distributive justice

CBL 1 – Mexican Migrant Farmer with SOB

Long Sm Group (DPS)
- Health Care Systems/Access to Health Care – How pay bills?
- Advance Cardiac Exam
- Behavior Modification (smoking cessation)
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The Educational Environment and Ongoing Curricular Reform - Assorted Thoughts, General Principles

1. Although the faculty of the University of California is primarily responsible for the curriculum, all participants in medical school education (administration, faculty and students) should have a voice in shaping the curriculum.

2. The curriculum should be dynamic, keeping pace with changes in science and technology as well as evolving to meet the needs of students, faculty, patients and the community.

3. Curricular elements should be integrated to accurately reflect the interconnectedness of body, mind and science when learning about and delivering clinical care.
4. Efforts should be made to highlight the clinical relevance of basic science curricular material.

5. Educational efforts should be designed to foster a sense of community within the school of medicine.

6. Efforts should be made to incorporate local and regional areas of strength and excellence (e.g. biotech, cross-border medicine, etc).

7. Efforts should be made to highlight the longitudinal and continuity of care responsibilities of physicians and a collaborative team-based approach to delivering quality health care.
The Educational Environment and Ongoing Curricular Reform -
Assorted Thoughts, General Principles

8. The curriculum should incorporate “programmed redundancy” that introduces and highlights important clinical concepts early on and then re-exposes students to such concepts with increasing levels of sophistication at each re-visit.

9. Efforts should be made to allow curricular flexibility, enabling (within reason) students to customize their experience to fit individualized educational goals.

10. Assessments of knowledge and clinical competence should be meaningful and emphasize repetitive and supportive formative feedback until demonstration of the desired level of competence is achieved.

11. As a consequence of the above a pass-fail, or better - competent / not yet-competent grading system will be used throughout the “Practice of Medicine” Course.
The Educational Environment and Ongoing Curricular Reform - Assorted Thoughts, General Principles

12. In creating the optimal synergy of the ICM and SBS curricula it is recognized that some elements covered currently cannot be properly incorporated into the proposed Practice of Medicine course, and will need to be located elsewhere. For example, approximately 33 hours of SBS in the winter of 2nd year is devoted to psychopathology, which, like general pathology requires a place in the curriculum. It is possible this should be a separate core course within the basic science track, or part of an expanded brain and mind core course.

13. Similarly, though notions of growth and development will inform the Practice of Medicine sequence, it is likely that more formal knowledge elements will need to be added elsewhere (DPS?).