Case Western Reserve University School of Medicine – University Program

Block 4: Action Plan 2018-2019

Year 1 (July - May)

Becoming a Doctor	The Human Blueprint	Food to Fuel	Homeostasis
Block 1 (5 Weeks)	Block 2 (11 Weeks)	Block 3 (11 Weeks)	Block 4 (14 Weeks)
Population Health, Epidemiology, Biostatistics, Bioethics, Health Disparities	Endocrinology, Reproduction, Development, Genetics, Molecular Biology, Cancer Biology	Gastrointestinal, Nutrition, Biochemistry	Cardiovascular, Pulmonary, Renal, Cell Physiology, and Pharmacology
Field Experiences Assessment Week	Clinical Immersion Week Assessment Week	Clinical Immersion Week Assessment Week	Clinical Immersion Week Assessment Week
Structure (Anatomy, Radiology, and Histopathology) **Foundations of Clinical Medicine** (Tuesday Seminars, Communications, Physical Diagnosis, Patient Based Experiences)			

1. **Course Description:**

   The Homeostasis Block (Block 4) integrates the following disciplines: Cellular Physiology, Principles of Pharmacology, Bioethics, Physiology and Pathophysiology of the Heart, Lungs and Kidneys. The content areas are introduced individually and then integrated, primarily through IQ cases and SEQs during the second half of the Block.

2. **Block Co-Leaders:**

   Amy Wilson-Delfosse, PhD and Vidya Krishnan, MD MHS

3. **Design Team:**

   Heart: Jim Strainic, MD and Ashish Aneja, MD (section leaders); Jose Ortiz, MD, and Brian Hoit, MD.
   Lungs: Vidya Krishnan, MD MHS and Ziad Shaman, MD (section leaders); Jeffrey Renston, MD, James Finley, MD PhD
   Kidneys: Mimi Lam, MD (section leader)
   Pharmacology: Jason Mears, PhD (section leader)
   Bioethics: Mark Aulisio, PhD and Kathryn (Kate) Miller, MD MA (section leaders)
   Cellular Physiology: Steve Jones, PhD. (section leader)

4. **Block Objectives:** Please fill in the table below for your Block Objectives.

Competency and Definition	EPO	Block Objective	Recommended Changes
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Understand how drugs affect the body and how the body handles drugs.	none
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Understand a) normal cardiovascular physiology and cardiac cell function and b) how cardiovascular diseases alter normal cardiac physiology and function at both the organ and cellular levels.	none
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Understand a) the role of the kidney in maintaining homeostasis and b) the interaction of the kidneys with other organ systems.	none
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic	Understand a) normal pulmonary physiology; and b) how pulmonary diseases alter normal pulmonary physiology and function.	none

sciences as well as the application of this knowledge to patient care	science knowledge to be an effective starting resident physician		
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Apply principles of cell physiology to understand molecular function of the heart, kidneys and lungs.	none
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Recognize and analyze ethical problems in clinical medicine and biomedical research using the principles of autonomy, beneficence, nonmaleficence and justice.	none
Teamwork & Interprofessional Collaboration Demonstrates knowledge and skills to promote effective teamwork and collaboration with health care professionals across a variety of settings	Performs effectively as a member of a team	Develop and practice the knowledge and skills that promote effective teamwork across a variety of settings.	none
Professionalism Demonstrates commitment to high standards of ethical, respectful, compassionate, reliable and responsible behaviors in all settings, and	Commonly demonstrates compassion, respect, honesty and ethical practices Meets obligations in a reliable and timely manner	Understand and practice the behaviors of an ethical, respectful, compassionate, reliable, and responsible physician.	none

recognizes and addresses lapses in behavior	Recognizes and addresses lapses in behavior		
Interpersonal & Communication Skills Demonstrates effective listening, written and oral communication skills with patients, peers, faculty and other health care professionals in the classroom, research and patient care settings	Uses effective written and oral communication in clinical, research, and classroom settings Demonstrates effective communication with patients using a patient-centered approach Effectively communicates knowledge as well as uncertainties	Understand and demonstrate effective communication skills for learning and clinical practice environments.	none
Research & Scholarship Demonstrates knowledge and skills required to interpret, critically evaluate, and conduct research	Analyses and effectively critiques a broad range of research papers Demonstrates ability to generate a research hypothesis and formulate questions to test the hypothesis Demonstrates ability to initiate, complete and explain his/her research	Analyze, critique and present research studies from the primary literature.	none

5. **In the grid below, please list the specific course changes you made this year based on last year's report**.

What changes were made 2018-2019?	How did the changes work?	How will you follow-up on these changes next year 2019-2020?
We made improvements to the new normal cardiac physiology IQ case [IQ2 –	Feedback from IQ facilitators was good.	Based on student and IQ facilitator feedback, we do not anticipate any further

Joe Smith], based on prior year IQ facilitator feedback.		significant changes to this IQ case.
We updated references for all IQ cases to include applicable CaseMed Minute videos.	The students consistently report the importance of the CMM series to complement the other methods of learning for important concepts.	Faculty will continue to make CMM videos, based on student feedback.
Powerpoint slides were made for Dr. Murray Altose's pulmonary physiology lecture.	While the "chalk talk" style of teaching was still utilized, students were able to take notes on the pre-developed slides. Overall feedback for this session was finally commensurate to the high-value of the content and delivery of the talk.	Continue to use the Powerpoint slides for note-taking purposes.
Radiology removed from the Block 4 curriculum (moved to the GARLA curriculum)	Students still getting relevant teaching for radiology curriculum.	Continue current curriculum changes.

6. **What changes do you anticipate making to the Block next year (AY 2019-2020)**

We do not anticipate any **major** changes to Block 4 in AY2018-2019. We believe that we have finally moved closer to optimization of the introductory parts of the cardiovascular curriculum.

Unfortunately, Dr. James Finley stepped down as co-Block leader. Dr. Vidya Krishnan will be assuming this role, with the skilled guidance of Dr. Wilson-Delfosse. Dr. Kate Miller is also joining the design team as co-leader of the Ethics section, along with Dr. Mark Aulisio. Dr. Robert Bahler is officially enjoying retirement and stepping away from the design team. We wish him all the best and thank him for his contributions to Block 4.

We annually review the success and feasibility of the Clinical Immersion week. Although we believe that student feedback is overly critical, we do believe that this week continues to be a good dedication of time and effort. We will make every effort to continue Block 4 Clinical Immersion week in AY2019-2020. Students have requested that we move Clinical Immersion week to the week immediately before exams and we will give this consideration for AY2019-2020.

7. **What successful, innovative components of your block are best practices that you would like to share with the other Blocks?**

We continue to be pleased with our real-time evaluation results from our TBL sessions but will continue to work to optimize application exercises and facilitator training.

We continue to believe that our end of week Summary & Integration sessions that extensively utilize the audience response system is a best practice of the block. We use student feedback to create new CaseMed Minute series videos to supplement key concepts.

8. **What specific changes (lectures, TBL, IQ cases, other) do you plan to make to the course next year?**

Changes anticipated for next year	Reason for changes (evidence)
Standard yearly updates to IQ case	Normal procedure
Improved approach to oral presentation in IQ case content	Continuous improvement of curriculum
New summary IQ case to integrate Block 4 concepts (replace shock case – IQ21 Stacey Ford)	Better realize goal of integration of block concepts without introducing new material in the last week.
Adapting teaching to new HEC building – e.g., incorporating group learning into each of the didactic sessions	Learning spaces are more amenable to facilitate teaching the Block 4 curriculum for the modern learner.

9. **Please review your Block objectives. Have you added or deleted major concept areas to your Block?**

Deletions	Additions
Lung cancer lecture was eliminated (topic is	”Sleep” lecture integrates both pulmonary and cardiac physiology

covered in another Block)	

10. Describe how faculty teaching quality was reviewed for your block. What faculty development opportunity was offered in response to student feedback?

Section Leaders attend as many of the lectures in their sections as possible. They also review Block 4 faculty teaching evaluations (lecture and TBL) and if faculty are rated poorly, the possible reasons for this are considered. Faculty in need are referred to the Center for the Advancement of Medical Learning for coaching. Workshops on lecture skills are particularly encouraged. If teaching is particularly poor or efforts to align the lecture content with expectations of the curriculum cannot be achieved, then replacement teachers will be sought.

11. Response to PEAC Report

Radiology has also been removed from the Block 4 curriculum, and added to the GARLA curriculum. Anatomy curriculum will now be aligned with the *** through use of HoloLens.

12. Acknowledgements:

Block 4 continues to be extremely well managed by our course managers. Nivo Hanson and Michele Mumaw deftly managed Block 4 in AY2018-2019. We continue to be appreciative of Katie Battistone for her support of our formative and summative assessments, Yifei Zhu for program evaluation, Celinda Miller for outstanding IQ program support, Carol Chalkley for Clinical Immersion scheduling support, and others in the Office of Curriculuar Affairs for assistance with TBL's. These staff members are to be commended for assuring that Block 4 always runs smoothly. They are invaluable.

Class of 2022 was asked questions of Block 4 components. Results are reported below as compared to results of previous three years. Responses/Expected: 85/91 (93%)

Percentage of Students who rated "Good" or "Excellent"

Block 4: Homeostasis				
General Block Aspects				
Block Components	2015-16 %	2016-17 %	2017-18 %	**2018-19* %**
Overall quality of this Block	92	100	85	**85**
Block Concepts/Integration of Block Concepts and Longitudinal Themes				
Pharmacology	84	85	71	**59**
Cell Physiology	82	72	59	**65**
Cardiovascular	83	80	83	**87**
Renal	97	100	92	**98**
Pulmonary	88	91	79	**85**
Gross Anatomy	64	44	44	**31**
Histopathology	87	70	82	**81**
Bioethics	69	67	58	**61**
Radiology	76	20	15	**--**

Rating scale for AY 2017-18 and AY 2018-19 is "very good" or "Excellent"