Supplemental Digital Appendix 1

High-Value Care Survey Questions, From a National Curricular Needs Study, 2014

These questions were a subset of the larger Clerkship Directors of Internal Medicine (CDIM) annual survey in 2014. All members of CDIM, who are clerkship directors, are sent the survey for completion.

“High-value care” (HVC) incorporates (1) understanding the benefits, harms, and relative costs of interventions, (2) decreasing or eliminating interventions that provide no benefits or may be harmful, (3) choosing interventions and care settings that maximize benefits, minimize harms, and reduce costs, (4) customizing a care plan with the patient that incorporates their values and addresses their concerns, and (5) identifying system level opportunities to improve outcomes, minimize harms, and reduce health care waste.

For each of the following, please rate using the following scale:

1= Strongly disagree
2= Somewhat disagree
3= Neutral
4= Somewhat agree
5= Strongly agree
6=I do not know

1. Medical schools have a responsibility to teach students how to practice HVC
2. It is important to teach HVC on the internal medicine clerkship
3. The majority of internal medicine faculty who work with students in our medicine clerkship consistently role model HVC.
4. The majority of internal medicine residents consistently role model HVC
5. Medical students in our clerkship have access to information about the local costs of tests and treatments ordered for their patients
6. By the end of our internal medicine clerkship, students are prepared to consider the value and costs of care when making medical decisions regarding tests and treatments for patients
7. By the end of our internal medicine clerkship, students are prepared to incorporate patients’ values and concerns when making decisions regarding tests and treatments
8. The internal medicine clerkship curriculum at my institution has components focused on HVC (structured learning experiences beyond informal clinical experiences).
   a. Yes [If yes, go to next question]
   b. No [If no, go to question 13]
9. Approximately how many hours of formal instruction are devoted to HVC on the internal medicine clerkship?
   a. <1  
   b. 1–2  
   c. 3–4  
   d. >4

10. Which topics related to HVC are covered during your clerkship? [select all that apply]
   a. Defining value and why clinical reasoning matters  
   b. Healthcare costs and payment models  
   c. Statistics and clinical decision making (e.g., pre-test probability, likelihood ratios, thresholds to test and treat)  
   d. Balancing benefits with harms and costs  
   e. Medications and value (e.g., generic vs. brand name meds, cost, and adherence)  
   f. Barriers to high value care and overcoming them (hidden curriculum, system-level waste)  
   g. Cost-effectiveness analysis  
   h. Preventive care and value  
   i. Overuse and misuse of diagnostic laboratory tests  
   j. Overuse and misuse of diagnostic imaging tests  
   k. Comparative effectiveness (providing evidence of effectiveness, benefits, and harms of different treatment options)  
   l. Other (list as many as needed) __________________________

11. Which of the following methods does your internal medicine clerkship use to teach HVC? [select all that apply]
   a. Structured discussion (e.g., on rounds, in clinic)  
   b. Didactic sessions (e.g., lecture)  
   c. Review of patient chart, billing, or orders  
   d. Independent reading materials  
   e. Web-based (online) learning  
   f. Point of care decision making tools  
   g. Simulation-based education (e.g., case scenarios with standardized or simulated patients)  
   h. Problem based learning  
   i. Small group learning  
   j. Structured reflection on clinic experience  
   k. Other (free text) ____________________________
12. What methods are used to assess students’ competency in HVC during your internal medicine clerkship? (check all that apply)
   a. Knowledge test (i.e., multiple choice)
   b. Interactive computer based modules
   c. Standardized patient encounters
   d. Direct observation form
   e. Reflective exercise
   f. Component of clinical evaluation
   g. No assessment needed
   h. Other

13. On the internal medicine clerkship, do you feel that the amount of student instruction on HVC is:
   a. Inadequate
   b. Adequate
   c. Excessive
   d. Comments: __________________________________________________________

14. What resources does faculty use to teach about high value care? [select all that apply]
   a. The ACP high value care cases
   b. The ACP/AAIM high value care modules for GME programs
   c. The Choosing Wisely campaign materials
   d. Institutional/departmental workshops on high value care
   e. External workshops on high value care
   f. No current efforts, but we intend to implement faculty development programs
   g. I don’t know
   h. Other (please list)

15. When in the curriculum should students be taught about HVC? [select all that apply]
   a. Preclinical phase of undergraduate medical education
   b. Clerkship phase of undergraduate medical education
   c. Advanced clinical phase of undergraduate medical education
   d. This topic should not be taught in undergraduate medical education

16. Please rate the following HVC topics based on whether they should be taught to third year medical students on the internal medicine clerkship:
   3 point SCALE for each question: High priority (should be taught), Neutral, Low priority (should not be taught)
   a. Defining value and why clinical reasoning matters
   b. Healthcare costs and payment models
   c. Statistics and clinical decision making (e.g., pre-test probability, likelihood ratios, thresholds to test and treat)
   d. Balancing benefits with harms and costs
   e. Medications and value (e.g., generic vs. brand name meds, cost and adherence)
f. Barriers to high value care and overcoming them (hidden curriculum, system-level waste)
g. Cost-effectiveness analysis
h. Preventive care and value
i. Overuse and misuse of diagnostic laboratory tests
j. Overuse and misuse of diagnostic imaging tests
k. Comparative effectiveness (providing evidence on the effectiveness, benefits, and harms of different treatment options)
l. Other [list as many as needed] ________________________

17. Please rank the top 3 methods of instruction that would be most effective to teach HVC:
   - Problem based learning
   - Web-based interactive computer module
   - Didactic sessions (e.g. lecture)
   - Simulation-based education (e.g., case scenarios with standardized or simulated patients)
   - Small group learning
   - Structured reflection on clinical experiences
   - Point of care decision making tools
   - Independent reading materials
   - Review of patient chart, billing, or orders
   - Informal discussion (e.g., on rounds, in clinic)
   - Other _________________________________

18. Choose the top 3 barriers you face in teaching HVC on the internal medicine clerkship.
   a. Financial support
   b. Dedicated time in the curriculum
   c. Faculty time to teach
   d. Lack of faculty expertise
   e. Administrative support (i.e., for scheduling, etc)
   f. Lack of curricular materials
   g. Lack of student interest
   h. Lack of clerkship director interest
   i. Other (please describe) ________________________________
There will be a free series of six interactive on-line modules, each taking approximately 25 minutes to complete, designed specifically for medical students available in July 2014. Which of the following statements best describes how you would most likely implement an on-line HVC curriculum with your clerkship curriculum?

- a. I would add the high value care module(s) on to what students are already doing in the clerkship without changing anything else
- b. I would integrate the high value care module(s) into another activity that the students are already doing (e.g., lecture, case-based discussion, etc.)
- c. I would integrate the high value care module(s) into a new activity (e.g., lecture, case-based discussion, etc.)
- d. I would replace an existing activity with the new HVC module(s)
- e. I don’t plan to implement the high value care curriculum