**Introduction to Version 4.0 of the High Value Care Curriculum for Internal Medicine Residents**

The High Value Care Curriculum (HVC) has been jointly developed by the American College of Physicians (ACP) and the Alliance for Academic Internal Medicine (AAIM) to help train internal medicine residents to provide high value patient care and to engage them in identifying system level opportunities to reduce waste and improve patient outcomes. This curriculum has been adapted from previous versions, now updated to include a more integrated focus on systems and quality improvement, with new material on medical decision making and the clinical reasoning process. The updated curriculum includes all new patient cases and small group activities that have been beta tested by residents.

**Background**

Healthcare costs in the United States are increasing at an unsustainable rate: $253 billion in 1980 to $714 billion in 1990 to nearly $2.7 trillion in 2014. What’s even more remarkable is the general agreement that approximately 30% of healthcare costs (more than $750 billion annually) are wasted care, care that is potentially avoidable and would not negatively affect the quality of care if eliminated (1). Examples of such care include overuse and misuse of diagnostic testing, avoidable hospitalization and re-hospitalization, and overuse of emergency department services. At the same time, there is growing concern that medical expenditures, particularly those borne by the Federal government under Medicare and Medicaid, are contributing significantly to the burgeoning Federal deficit and this country’s weakening economy. Graduate medical education provides an opportunity to shape the habits of future physicians regarding cost-consciousness and stewardship of resources, especially as it imprints their long-term practice behaviors.

The overarching goal of this curriculum is to help internal medicine residents and their faculty to provide care that meets the Institute for Healthcare Improvement’s triple aim: better care for individual patients, better health for populations, and lower per capita health costs (2).

* + - 1. Institute of Medicine.The Healthcare Imperative: Lowering Costs and Improving Outcomes. Washington, DC: National Academies Pr; 2010.
			2. The IHI Triple Aim <http://www.ihi.org/Topics/TripleAim/Pages/Overview.aspx> accessed on 2/13/18.

**Background Reading**

* A recent paper that summarizes what needs to be done to improve High Value Care education.

Smith CD, Levinson W. A Statement of Commitment to High Value Care Education from the Internal Medicine Community. Ann Intern Med. 2015; 162:639-640 <http://annals.org/article.aspx?articleid=2288522&resultClick=1>

* The initial paper that describe the core concepts to evaluate benefits, harms and costs of medical interventions and provides an easy framework to consider medical interventions.

Owens DK, Qaseem A, Chou R, Shekelle P. High-value, cost-conscious health care: concepts for clinicians to evaluate the benefits, harms, and costs of medical interventions. Ann Intern Med. 2011; 154:174-180.

<http://annals.org/article.aspx?articleid=746773&resultClick=1>

* The paper that proposes high value, cost-conscious care should be added as a critical seventh competency for physicians by the ACGME core.

Weinberger SE. Providing high-value, cost-conscious care: a critical 7th general competency for physicians. Ann Intern Med. 2011; 155:386-388.

<http://annals.org/article.aspx?articleid=747128&resultClick=1>

* The paper that introduces the ABIM Foundation’s Choosing Wisely campaign to challenge medical societies to identify the “Top 5” list, or the five tests or procedures commonly used in their specialties whose necessity should be questioned and discussed by patients and providers.

Cassel CK, Guest JA. Choosing Wisely: Helping physicians and patients make smart decisions about their care. JAMA 2012;307:1801-1802.

<http://jama.jamanetwork.com/article.aspx?articleid=1150103>

* Visit the Choosing Wisely website ([www.choosingwisely.org](http://www.choosingwisely.org)) and explore the lists of tests that physicians and patients should question routinely doing that were created by your professional societies (over 72 lists are available)
* The short practical paper that offers a few simple questions to ask before ordering tests to help with the provision of High Value Care

Laine C. High-value testing begins with a few simple questions. Ann Intern Med. 2012;156:162-163.

<http://annals.org/article.aspx?articleid=1033305&resultClick=1>

* For a deeper dive into High Value Care challenges consider reading this clinically relevant and highly practical book: Moriates C, Arora V, Shah N. Understanding Value-Based Healthcare. McGraw Hill Education; 2015.

**The Framework**

For each of the modules, residents will be directed to use a five step framework to develop the skills of practicing high value care. You should become comfortable discussing the various steps of the framework to facilitate the teaching sessions.

* **Step 1**: Understand the benefits, harms, and relative costs of the interventions you are considering
* **Step 2**: Decrease or eliminate the use of interventions that provide no benefits and/or may be harmful
* **Step 3**: Choose interventions and care settings that maximize benefits, minimize harms, and reduce costs. Use comparative effectiveness and cost effectiveness data where available.
* **Step 4**: Customize a care plan with each patient that incorporates the patient’s values and addresses patient and family concerns
* **Step 5**: Identify system level opportunities to improve outcomes, minimize harms, and reduce healthcare waste

We also introduce a new five step framework for High Value Care Quality Improvement, derived from a combination of several existing QI frameworks.

* **Step 1**: Identify lapse in quality or increased waste (sentinel events, near misses, workarounds)
* **Step 2**: Study systems and processes, including benefits, harms, and costs of interventions
* **Step 3**: Make changes to process to eliminate/decrease harmful or non-beneficial interventions
* **Step 4**: Incorporate stakeholder (including patient) values, concerns, and feedback
* **Step 5**: Based on analysis, abandon, modify or spread and scale intervention

**The Curriculum**

Six modules are provided. When presented in order, they provide a robust immersion into the issues around value and cost in healthcare, each using important examples within the field of internal medicine to engage the participants. Each module offers several inpatient and outpatient cases allowing the curriculum to flexibly fit into the needs of each program. Modules can be presented independently or in any combination, as the framework is re-introduced in each session.

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|  | **Topic** |
| **1** | **Eliminating Healthcare Waste and Over-ordering of Tests** |
| **2** | **Healthcare Costs and Payment Models** |
| **3** | **High Value Diagnostic Testing and Screening** |
| **4** | **High Value Hospitalization** |
| **5** | **Overcoming Barriers to High Value Care** |
| **6** | **High Value Quality Improvement** |

**Facilitating Active Learning**

Two of the most important goals of delivering this curriculum are to make it locally relevant and to actively engage the learners in discussion about the issues. To help you achieve success, we offer these important concepts for small group, participatory discussion and for getting active audience participation. In addition, you may consider using a co-learning approach where you pair a faculty member with a fellow to present modules as a team to remaining faculty and residents in your program. You may also consider using these materials in your program in a more integrated manner by including key high value care principles, steps in the framework, or other specific high value care learning objectives into your existing conferences for residents such as journal club, grand rounds, tumor board, or morbidity and mortality conferences.

Effective facilitation involves asking questions to promote thinking and reflection on the material presented. Ask participants to consider the information and think out loud about what it means for them. As the information is shared, the facilitator should work to understand the meaning for the participants and make connections between individuals, between ideas and concepts, and between the various concerns or trouble spots that are raised in the discussion.

Good facilitation also includes managing both the content and the process. Watch how the conversation unfolds and be sure to notice participants who are listening intently, but not participating. They have something to say and may provide balance to the discussion. The discussion should be an exploration of the new ideas with real time spent on wrestling with the concepts and how they might be applied in practice.

Individual participants should be empowered to own their point of view and share it with the group to help foster group learning by illustrating how others think about the topic at hand. If the curriculum is delivered as part of a series, follow up teaching sessions can begin by asking the participants to share how their practice patterns have changed or to reflect on if and how the information has changed their thinking.

**Active Learning Tools**

We suggest the following tools and strategies to foster active learning. Many of these are also suggested in the individual module facilitator guides. Alternatively, you may choose to engage your learners in different ways that fit your local environment better.

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| **1** | **Think-Pair-Share** | Ask a provocative question and give each participant a few minutes to reflect and write down answers. Then ask participants to pair up and discuss their thinking with their partner. After a few minutes of paired discussions, ask for volunteers to share important observations with the larger group.  |
| **2** | **Audience Response Systems** | High technology or low technology audience response systems allow participants to commit to an answer to multiple choice questions. Examples include clickers/smartphones/3x5 color-coded cards. This technique provides the facilitator with a real-time assessment of what the audience knows about a topic and can help identify knowledge gaps. |
| **3** | **Small Group Work** | There are three variations of small group work: one task with multiple components (all groups/same tasks); multiple short tasks (all groups/same tasks); or multiple short tasks (all groups/different tasks). How complicated the tasks are will determine which variation to use. Encourage participation from all group members and ask for reports at the end of each task assignment. |
| **4** | **Worksheets** | Create a table or worksheet for individuals to complete, applying a new approach. Requires that you build in time for reflection and thoughtful work.  |
| **5** | **Wicked Questions** | Ahead of time, craft a question that sets up an internal conflict that exposes assumptions that we hold about an issue. Example: How does the fast and hectic pace of academic medicine provide a rich environment for mentoring the younger generation? Ask participants to consider their answers or thoughts to such a question. Share in groups to promote discussion and active learning. |
| **6** | **Talking Stick** | This can be used with a wicked question or any provocative idea. Organize groups into a circle/round tables. Have a physical stick to pass from one person to another. During the first round, each member of the group gets one minute to share thoughts and then passes the stick to another member (facilitator times it). For the second round, each person gets two minutes to comment on the collection of what’s already been said. After the second round, put down the stick and facilitate an inclusive discussion. |
| **7** | **Pre-Session Work (Flipped Classroom)** | Assign work before the session that may include reflecting on an interesting question, bringing a case/problem to discuss, or completing a worksheet on topic. |

**Faculty Toolbox**

This toolbox includes a retrospective, pre-post survey that you can ask your residents to complete to assess the effectiveness of the curriculum. In addition, tools to help faculty and program directors assess competence in high value care milestones are provided. Examples include a high value care educational prescription, a framework for fellow audit and feedback in high value care, a high value care conversation guide, and a tool to assess high value care teaching on rounds.

**Other Important Resources:**

Consider joining the **Teaching Value in Healthcare Learning Network** available on the Google plus platform. This is a community of medical educators who share tools and experience in teaching value to students, residents and faculty. In addition to online sharing of tools there are periodic Google hang outs where innovators in this field are interviewed live. <https://plus.google.com/u/0/communities/117569258202484418469>

**Choosing Wisely** is a national campaign started by the American Board of Internal Medicine Foundation in collaboration with the Robert Wood Johnson Foundation and Consumer Reports to charge professional medical societies with identifying lists of 5 medical interventions that patients and providers should question doing routinely. The publically available, evidence-based lists and resources from over 72 medical specialty societies are available at [www.choosingwisely.org](http://www.choosingwisely.org)

The **Do No Harm Project** aims to use clinical vignettes written by trainees to improve recognition of harms that may result from medical overuse and to drive a needed culture change in the practice of medicine.

<http://www.ucdenver.edu/academics/colleges/medicalschool/departments/medicine/GIM/education/DoNoHarmProject/Pages/Welcome.aspx>

The internet has some other great resources for you to compare costs in healthcare. You may want to peruse these as part of your preparation or refer participants to them during the active learning portion of each module.

* [www.healthcare.gov](file:///C%3A%5CDocuments%20and%20Settings%5CDaisyS%5CMy%20Documents%5CDropbox%5CHVC%20Resident%20curriculum%204.0%20update%5Cwww.healthcare.gov)
* [www.healthcarebluebook.com](http://www.healthcarebluebook.com)
* www.ehealthmedicare.com
* [www.clearhealthcosts.com](file:///C%3A%5CDocuments%20and%20Settings%5CDaisyS%5CMy%20Documents%5CDropbox%5CFellowship%20HVC%20Curriculum%5Cwww.clearhealthcosts.com)
* [www.newchoicehealth.com](http://www.newchoicehealth.com)
* [www.goodrx.com](http://www.goodrx.com)