Appropriate Use of Medical Resources Compendium

American Hospital Association's PHYSICIAN LEADERSHIP FORUM

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Accelerating Performance Improvement

American Hospital Association®

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Introduction

Over the past two decades, and the past five years in particular, a national discussion has emerged focused on managing rising health care costs. Perhaps of greater importance, these increases have not always led to improved outcomes. At the same time, medical knowledge has increased exponentially and clinical knowledge is doubling as fast as every two years. But with all this knowledge looms a larger debate, when are we doing too much and how do we decide?

Care providers endeavor to provide the most appropriate care to patients regardless of cost, but all too often there isn't enough discussion with patients about what is appropriate. As medical societies, provider organizations and others look for ways to drive appropriate use, hospitals and health systems can play an important role in supporting and guiding these efforts.

Developed with guidance from the AHA's Committee on Clinical Leadership, the *Appropriate Use of Medical Resources* white paper identifies some of the drivers of health care utilization and its contributing factors. More importantly, the paper recommends a way to move forward that will place hospitals at the forefront of innovative change for reducing non-beneficial services while improving care. The paper identifies a "top five" list of hospital-based procedures or interventions that should be reviewed and discussed by a patient and physician prior to proceeding.

This paper builds on the *Ensuring a Healthier Tomorrow* report which identified two interconnected strategies to improve care while achieving a sustainable level of health care spending: promote and reward accountability and use limited health care dollars wisely. As an outgrowth of the latter, the AHA, with guidance from its Committee on Clinical Leadership, Physician Leadership Forum, regional policy boards and governing councils and committees, closely examined the appropriate use of medical resources.

To begin the discussion in your hospital and community, share *Appropriate Use of Medical Resources* with your board, medical staff and community leaders and use the accompanying discussion guide to explore the issue together. Further, to support your efforts, AHA has gathered toolkits targeting each of the five procedures or interventions:

Patient Blood Management
Clinical research has shown that restrictive transfusion practices are generally associated with better patient outcomes as well as reduced health care resource utilization.

Antimicrobial Stewardship
Antibiotics are one of the great discoveries in medicine and the most important weapon in fighting bacterial diseases. However, when it comes to antibiotics, more is not always better. The CDC reports that over half of all antibiotic prescriptions written in the United States are either unnecessary or used inappropriately.

Ambulatory Care Sensitive Conditions
As resource-intensive settings, emergency department and inpatient hospital care need to be carefully monitored to ensure the most appropriate use. Significant research has shown that for several Ambulatory Care Sensitive Conditions (ACSCs) access to primary care, urgent care clinics, outpatient services and other subacute settings can improve patient outcomes, reduce hospital admissions and readmissions and lower costs.

Elective Percutaneous Coronary Intervention

According to the American College of Cardiology, American Heart Association, the Society for Cardiovascular Angiography and Interventions and other experts, immediate coronary angiography with PCI is recommended for patients with ST-elevation myocardial infarction (STEMI). Research has shown, though, for patients with non-acute coronary artery disease, PCI has little to no effect on outcomes.

Aligning Treatment with Patient Priorities in the Context of Progressive Disease for Use of the ICU

The most appropriate use of the ICU can improve outcomes, improve the care experience and lower costs. Hospitals and health care systems should encourage early intervention and discussion about priorities for medical care in the context of progressive disease and robust communication between patients and their providers to understand patients' preferences and goals.

For more information visit *www.aha.org/appropriateuse*

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Executive Summary

Over the past two decades, and in the past five years in particular, there has been national discussion concerning the increased cost of health care. Perhaps of greater importance, increased health care costs have not necessarily led to improved outcomes. In fact, overdiagnosis, overuse of treatments, and a "try everything" approach to medical care have increased health care costs with little discernible improvement in health. For example, in a 2011 article in the *Archives of Internal Medicine*, researchers advised against imaging for low back pain within the first six weeks (unless certain severe conditions were suspected) because imaging the lumbar spine before six weeks does not improve outcomes but does increase costs. More recently, the Centers for Disease Control and Prevention reported that approximately half of all antibiotic prescriptions are either unnecessary or used inappropriately. This practice exposes patients to unnecessary side effects and can increase the prevalence of drug-resistant bacteria.

But, we can take steps to manage health care costs while also improving health outcomes. How? The answer is straightforward: use medical resources appropriately. By reducing the utilization of non-beneficial care – care that increases costs without a concomitant increase in value – we can have a delivery system that achieves the Triple Aim...improved health, a quality patient experience, and lowered costs. Recent studies highlighted in *Health Affairs* show that when health care providers are well informed on appropriate care options, and those options are fully discussed with engaged patients, health care improves at reduced costs.

Over the past year, the American Hospital Association (AHA) with guidance from its Committee on Clinical Leadership, Physician Leadership Forum, regional policy boards, and governing councils and committees examined and discussed appropriate use of medical resources. This paper, which is organized in three parts, served as the basis for those policy discussions. First, we identify the drivers of increased health care utilization, including over-diagnosis, overuse of treatments, inappropriate use of high cost care settings, fear of medical malpractice, and unease with ambiguity. Second, we examine current studies and programs that suggest improved health at reduced costs can be achieved through enhanced provider education and increased patient engagement. Finally, we recommend a way to move forward that will place hospitals at the forefront of innovative change for reduced cost, yet improved health care.

Hospital and Health System Approaches

As medical societies, provider organizations, and others look for ways to drive appropriate use of medical resources, hospitals and health systems can play an important role in supporting and guiding these efforts within their organizations. As one of the more intense health care resource users, hospitals and health systems have a responsibility to encourage appropriate and consistent use of health care resources and give providers the tools to better communicate with patients about appropriate use of resources.

As your national association, the AHA is pursuing change via several avenues. Among our efforts, we have developed a “top five” list of hospital-based procedures or interventions that should be reviewed and discussed by a patient and physician prior to proceeding. These are:

- Appropriate blood management in inpatient services;
- Appropriate antimicrobial stewardship;
- Reducing inpatient admissions for ambulatory-sensitive conditions (i.e., low back pain, asthma, uncomplicated pneumonia);
- Appropriate use of elective percutaneous coronary intervention; and
- Appropriate use of the intensive care unit for imminently terminal illness (including encouraging early intervention and discussion about priorities for medical care in the context of progressive disease).

To begin the discussion in your hospital and community, share this paper with your board, medical staff, and community leaders and use the discussion questions at the end to explore the issue together. In the coming months, the AHA will roll out resources targeting each of the five procedures or interventions listed above. We also will share best practices from hospitals and health systems that are already on this path. Equally important, the AHA will continue to work to reduce the barriers that inhibit hospitals’ efforts to provide the appropriate care at the appropriate time in the appropriate setting.

Introduction

Medical knowledge has increased exponentially in the last few decades and clinical knowledge doubles as fast as every two years.[1] Cutting edge surgeries, cures for once devastating diseases, and tools to manage chronic illness have all been great boons to society, allowing more productive lives. But with all this knowledge looms a larger debate, when are we doing more than we should and how do we decide?

Continuing public concern around the cost of health care and the opportunities to prevent unnecessary harm to patients has prompted clinicians and policymakers alike to take a hard look at the appropriate use of care resources. While specialty medical societies and others have begun to identify areas of overuse and explore methods to measure and reduce it, the role of hospitals and health systems has not been explored in depth. This paper examines the drivers in health care costs, enumerates contributing factors, and suggests ways hospitals and the American Hospital Association (AHA) can play a role in addressing the appropriate use of medical resources.

Several decades ago, utilization review was as essential to health care discussions as quality and patient safety are today; but as safety and quality became an organizational priority, there has been less vigorous review of appropriateness. Health care resources are finite, and if we don't explicitly manage them, we will increase disparities in care. Providers endeavor to deliver the most appropriate care to patients regardless of cost, but all too often there is not enough discussion with patients about what is appropriate. Will this test or procedure improve patient outcomes and is it consistent with the patient's values and goals? And further, how can the health care system equip patients and their families to participate in those discussions and make the most informed decisions in partnership with their caregivers?

: SUPPORTING EVIDENCE :

In 2012, Don Berwick, M.D. and Andrew Hackbarth, M.Phil., published an article in the *Journal of the American Medical Association* highlighting the amount of non-value-added health care provided in the United States, building on the work of *The Dartmouth Atlas of Healthcare* and others. As they state, "The opportunity is immense. In just 6 categories …– overtreatment, failures of care coordination, failures in execution of care processes, administrative complexity, pricing failures, and fraud and abuse – the sum of the lowest available estimates exceeds 20% of total health care expenditures."[2]

In 2008, the Congressional Budget Office director testified before the House Budget Committee that "Researchers have estimated that nearly 30 percent of Medicare's costs could be saved without negatively affecting health outcomes …. With health care spending currently representing 16 percent of GDP, that estimate would suggest that nearly 5 percent of GDP – or roughly $700 billion each year – goes to health care spending that cannot be shown to improve health outcomes."[3]

Factors Driving Overuse

Years of fee-for-service financial incentives, increased information availability, malpractice concerns, and a societal desire to "try everything" have helped drive the levels of procedure-based intervention and treatment we see today. While providers have historically been financially incentivized to deliver more rather than less care, fee-for-service structures will continue to recede as the nation moves from volume-based to value-based reimbursement, triggering shifts in care provision and payment incentives.

Payment incentives

Financial incentives helped shape the delivery of preventive care. For decades, preventive medicine has advocated for annual physicals, testing at specific intervals, and for interventions to prevent or slow disease. This focus on specific interventions has driven volume and in some cases resulted in identifying disease processes that might have little effect on patient outcomes. Rather than the intervention focus of the past, some primary care providers have begun to shift to engaging patients in discussions around lifestyle management to curb the potential for disease.

Discomfort with ambiguity

In today's fast-paced, instant information environment, we have grown increasingly uncomfortable with ambiguity. At the same time, we have failed to ask whether knowing the answer is truly helpful or whether finding the answer is worth the cost. With medical websites offering diagnoses in a few clicks, categorizing symptoms into specific illnesses occurs despite the absence of clear clinical disease. At the urging of patients and with a volume-based reimbursement system, follow up testing and interventions often follow, rather than active surveillance, turning the asymptomatic information-seeking consumer into a patient. Evidence has shown that physicians with less than 10 years experience have 13 percent higher overall costs than their more experienced colleagues. While some of the difference may reflect younger physicians' familiarity with newer and potentially more costly procedures, some of the cost differential may be due to inexperience and driven by uncertainty and a desire to treat more aggressively.[4] This is a circumstance the care system does not discourage, but is financially incentivized to encourage under the current payment structure. It is too early to tell if this trend is one that will dissipate as these younger physicians gain more experience, or if the societal shift towards more information and desire for action might continue to drive higher costs. It is important that as health care becomes more complex and technology driven, we not fall under the spell of identifying and treating those anomalies that have little clinical consequence and might benefit from watchful waiting or less aggressive interventions.

Liability concerns

Another factor driving the levels of testing and procedures is the concern about possible malpractice actions. As a recent study indicated, physicians spend as much as 11 percent of their careers with an open, unresolved malpractice claim, so it is not surprising that the risk of a lawsuit can color ordering patterns to ensure providers leave "no stone unturned."[5] In the context of a fractured health care delivery system, this can lead to duplication of efforts and higher costs.

Utilization management

During the 1990s utilization management, a strong tool to guide the appropriate use of medical resources, became synonymous with cost cutting and denials of coverage. Unfortunately, what was a systematic review and discussion to determine evidence-based guidelines and protocols to ensure that patients received the most appropriate care became tainted with the denials of managed care organizations. At the same time, quality and patient safety efforts began to move to the forefront, driven in part by the release of the Institute of Medicine's *To Err is Human: Building a Safer Health System*, which pushed for a greater focus on quality and patient safety. While work on clinical practice guidelines and protocols has never stopped, it has only recently begun to reach the same level of attention and discussion as previously.

Appropriate setting

Utilization management also encompasses the use of the most appropriate setting for care delivery. As high cost settings, emergency department and inpatient hospital care need to be carefully monitored to ensure the most appropriate use. Significant research has shown that for several "ambulatory sensitive conditions" access to primary care, urgent care clinics, outpatient services, and other sub-acute settings can reduce hospital admissions and readmissions, lower costs and improve patient outcomes. Ambulatory sensitive conditions are defined as hospital admissions due to those medical conditions that could be avoided by provision of adequate primary care,[6] such as asthma and uncomplicated pneumonia.

In addition, the use of intensive care units (ICUs) for patients with imminently terminal illnesses has risen significantly over the last decade. While the use of hospice and palliative care has increased, a recent study highlights that it too often follows on the heels of overly aggressive care, including ICU stays. Hospice care increased from 21 percent to 42 percent from 2000 to 2009, and the usage of ICUs for those at the end of life also increased from 24 percent to 29 percent. What's concerning is that 40 percent of those entering hospice do so for very short periods and only after experiencing repeated emergency department, hospital, and ICU stays in the last several months of life. [7]

As the nation moves to transform the health care delivery system, all participants need to ensure that finite resources are not used for interventions that do not add to quality of care, but instead channel resources to settings where they can provide the greatest benefit to patients. Caution needs to be taken to preserve clinical judgment on the most appropriate use of testing, intervention, and care setting for each individual patient.

Increased Scrutiny

In the context of health reform efforts shining a light on appropriate use of medical resources, federal and state regulators as well as private payers are watching closely to curb the rising costs of the Medicare and Medicaid programs. The appropriate use of medical resources sits squarely at the intersection of medical judgment and the oversight and regulation of payment, potentially leading to conflicts around medical decision making and the need to be careful stewards of limited health care resources.

Some issues have received legal scrutiny over the last few years, including close examination of increases in imaging studies, and lawmakers have put measures in place to curb excessive use of imaging. For example, the Medicare Payment Advisory Commission recommended that Medicare require pre-approval for advanced imaging services for those physicians deemed to have high utilization in an attempt to curb excessive usage.[8] Imaging represents one of the fastest growing costs for Medicare patients, yet one study indicated that "20% to 50% of all 'high-tech' imaging provide no useful information and may be unnecessary."[9]

In several states, inquiries by regulatory agencies regarding the "medical necessity" of certain procedures, including the use of cardiac stents, have been initiated and some have become the subject of Senate committee investigations and lawsuits for "unnecessary" care. In addition, scrutiny has increased around the use of observation status versus inpatient admission. While this scrutiny exists for certain procedures with more evidence-based guidelines, many other issues have not been as clear cut. Given the relatively narrow list of existing evidence-based protocols, clinical judgment as to the most appropriate use of care resources is essential. While some interventions

and testing may not directly improve patient outcomes, they may be the most reasonable course of action at the time of treatment.

Clinical Evidence for Change

Studies are emerging that show an increase in diagnosis of disease due to more sensitive diagnostics as well as the potential for increased harm through unneeded treatment. But how do we determine what care is truly unneeded? Clinical evidence and disease treatment protocols exist for just a subset of care needs, and many care decisions are not easily categorized into existing protocols. There are, however, some clear areas where overdiagnosis; overuse of certain tests, procedures and interventions; and inappropriate use of higher cost settings are emerging.[10]

Increased screening and overdiagnosis of disease

As recent studies have shown, while the incidence of several cancer diagnoses has increased, there has not been a corresponding drop in their mortality rates. More people are living with a cancer diagnosis and more importantly receiving treatment that may not prolong their survival but could reduce their quality of life. For years, the war on cancer has focused on earlier detection, under the assumption that if we could detect the disease process early enough, we could stop it.[11] Unfortunately, as the following studies conclude, while we have become extremely adept at identifying cancer earlier and earlier, for some patients, we have been unable to stem the disease progression or reduce mortality (longer survival in these instances is attributed to "lead time bias" not better control of disease), and the treatment has adversely affected their quality of life. This finding puts in sharp focus the question of whether earlier and more aggressive treatment is warranted.

Studies of lung, ovarian and breast cancer screenings for low-risk populations have shown little impact on mortality rates. While more sensitive testing has increased the rate of diagnosis through earlier identification of disease, there has been little to no corresponding reduction in mortality. In addition, the increased sensitivity of testing has resulted in more false positive diagnoses, requiring additional interventions that could cause harm. As the authors of a 2007 study regarding computed tomography screening for lung cancer concluded, "Until more conclusive data are available, asymptomatic individuals should not be screened…"[12] To highlight the need for clear protocols and clinical judgment, results such as these cannot be extrapolated beyond their scope. For example, lung cancer screening for high-risk populations has decreased their mortality rates, but did not correlate to the general population. A recent update confirmed that annual screenings for low-risk populations did not reduce lung cancer mortality as compared with usual care.[13]

The *New England Journal of Medicine* recently published a review of data from 1976 through 2008 of mammography screenings indicating a significant overdiagnosis of breast cancer. "Despite substantial increases in the number of cases of early-stage breast cancer detected, screening mammography has only marginally reduced the rate at which women present with advanced cancer. … The imbalance suggests that there is substantial overdiagnosis, accounting for nearly a third of all newly diagnosed breast cancers, and that screening is having, at best, only a small effect on the rate of death from breast cancer."[14] These earlier diagnoses are leading to longer apparent survival rates because many are diagnosed before symptoms appear, but mortality rates have not significantly changed. So while a patient might live with a cancer diagnosis for 10 years

instead of five (a doubling of the survival rate), early detection has not slowed the disease progress and only subjected the patient to additional, possibly unnecessary treatment, anxiety, and poor quality of life. That is, a patient may be diagnosed with cancer five years earlier than previously; however, she still succumbs to the cancer at the same age, despite having undergone treatments for twice as long. Similar results have been found for ovarian cancer, where screening has not reduced mortality and the diagnostic follow up for false-positives has been associated with serious complications.[15]

These studies are appearing in the mainstream media and news reports. Recently, for example, the U.S. Preventive Services Task Force recommended against the use of prostate screening exams because evidence suggests "that screening of asymptomatic men often leads to the overdiagnosis and overtreatment of prostatic tumors that will not cause illness or death."[16] While studies found that screening slightly reduced mortality, it also was associated with a high risk of overdiagnosis, which might lead to serious complications, including incontinence and impotence.[17,18] In addition to overdiagnosis, identification of early stage prostate cancer has involved more aggressive treatment than might be warranted given the associated side effects and toxicities. A 2009 study highlighted the improved quality of life for those undergoing active surveillance versus several treatment options for low-risk, localized prostate cancer, concluding that active surveillance is a reasonable approach.[19]

An August 2013 *BMJ* study concluded that new imaging methods and biopsies of smaller nodules has led to an increase in the diagnosis of thyroid cancer but no corresponding increase in mortality, indicating that many papillary thyroid cancers treated today may never progress to cause symptoms or death. Thyroid cancer, the most common endocrine malignancy, also is one of the fastest growing diagnoses due in part to the use of imaging studies.[20]

Earlier this year, a working group for the National Cancer Institute recommended several strategies to refine the current approach to cancer screening and prevention, including changing cancer terminology based on companion diagnostics, creating observational registries for low-malignant potential lesions, working to mitigate over-diagnosis and expanding the concept of how to approach cancer progression. "The recommendations of the task force are intended as initial approaches. Physicians and patients should engage in open discussion about these complex issues. The media should better understand and communicate the message so that as a community the approach to screening can be improved."[21]

The Institute of Medicine (IOM) updated its work on the quality of cancer care with a new report in September 2013 indicating that "care often is not patient-centered, many patients do not receive palliative care to manage their symptoms and side effects from treatment, and decisions about care often are not based on the latest scientific evidence." IOM's framework for improving the quality of cancer care includes many of the elements discussed below in "Approaches Underway to Curb Overuse," such as engaging patients, training and educating the health care workforce to coordinate care and engage patients, strong use of evidence-based practices and quality measurement and performance improvement."[22] The committee's work also included a resource for patients to begin discussions with their physicians.

Overtreatment and the incidentaloma[23]

While the overdiagnosis of cancer has garnered attention due in large part to the invasive and debilitating effects of unneeded treatment, there are numerous other investigations into the overdiagnosis and overtreatment of less life-threatening conditions. For example, ear infections are often over-treated with antibiotics when watchful waiting would suffice, or antibiotics are inappropriately used to treat a viral condition that does not involve bacterial disease. Unfortunately, the overuse of antibiotics not only leads to public health concerns around the rise in antibiotic-resistant infections, it also brings serious side effects more debilitating than the initial disease.[24] The American Academy of Pediatrics recently updated their guidelines to apply stricter diagnostic criteria and broader use of observation for ear infections.[25] Similarly, a study in *BMJ* concluded that the use of tympanostomy tubes in children with recurrent ear infections varied widely from recommended guidelines and likely represented an overuse of surgery.[26]

Overtreatment with antibiotics has risen to national prominence with news stories of deaths due to antibiotic resistant strains. Antimicrobial stewardship programs, which are "coordinated interventions designed to improve and measure the appropriate use of antimicrobials by promoting the selection of the optimal antimicrobial drug regimen, dose, duration of therapy, and route of administration," [27] have increased in recent years. The Society for Healthcare Epidemiology of America, the Infectious Diseases Society of America, and the Pediatric Infectious Diseases Society issued a policy statement in 2012 calling for the development and broad dissemination of antimicrobial stewardship programs stating that "antimicrobial stewardship must be a fiduciary responsibility for all healthcare institutions across the continuum of care."[28]

In addition, the inappropriate use of blood and blood products has drawn some attention. The cost of blood and blood products continues to rise as additional testing is needed to ensure safety and there is a decreasing pool of donors.[29] Blood management programs have increased in recent years to ensure the safety of the blood supply and proper usage. Blood management programs involve the "implementation of evidence-based transfusion guidelines to reduce variability in transfusion practice, and the employment of multidisciplinary teams to study, implement, and monitor local blood management strategies."[30]

The AABB (formerly the American Association of Blood Banks) has developed guidelines on the proper use of red blood cell transfusions.[31] Recognizing the importance of appropriate blood management to the inpatient hospital setting, the Society of Hospital Medicine has included in their *Choosing Wisely* list for adult inpatient care, "Avoid transfusions of red blood cells for arbitrary hemoglobin or hematocrit thresholds and in the absence of symptoms of active coronary disease, heart failure or stroke."[32]

Percutaneous coronary interventions also have come under review for inappropriate use. The Department of Justice recently conducted inquiries regarding the "medical necessity" of certain interventional cardiology procedures. Cardiac stent usage became the subject of a Senate Committee on Finance investigation that ultimately resulted in several lawsuits for "unnecessary" care. The American College of Cardiology Foundation, in partnership with others, released revised guidelines outlining standards for cardiac catheterization in 2012.[33]

Further, the drive for increased information has affected the use of many health care technologies, particularly scanning technology such as ultra-

sound, computed tomography (CT), and magnetic resonance imaging (MRI). These tests, which provide detailed and useful clinical data, also are able to show anomalies that have no clinical significance, or incidentalomas. Unfortunately, once discovered, many lead to additional testing and may result in harm. In three separate studies looking at imaging of asymptomatic patients, findings included: 10 percent had gallstones present, 40 percent had damaged meniscal cartilage, and 50 percent had bulging lumbar discs.[34] These three studies highlight the difficulty in using scans for diagnosis given the prevalence of these findings in asymptomatic patients. Concerns also are emerging regarding the increased exposure to potentially unnecessary levels of radiation, not to mention the potential harm from diagnostic and therapeutic interventions that follow the finding of a non-clinically relevant anomaly.

Appropriate setting

Overuse potential exists in many areas of the health care delivery system, and inappropriate use of hospital care can quickly result in high costs. For example, lack of coordination of care across settings has led to the increased potential for hospital readmissions. While experts agree optimum management of chronic disease should happen outside of the hospital, lack of coordination, coupled with potential gaps in primary care access, may result in increased use of hospital care. Efforts to ensure that patients are treated in the most appropriate setting for their needs and work by hospitals to reduce 30-day readmissions in particular are showing some positive results.[35] Appropriate use of resources also needs to be monitored for the ICU, where use in imminently terminal patients may not be warranted. It is essential that providers and patients discuss the prognosis and likely course of all serious illnesses, the patient's wishes and priorities in the context of the progressive disease(s), the options for palliative care co-management at the same time as disease directed treatment, and the benefits of hospice care once disease prognosis is under six months (patient and family care needs met at home, symptoms managed, prevention of crises leading to repeated hospitalization), and the goals preferred (remain independent at home, symptoms well controlled versus hospitalization).

Lowering diagnostic thresholds

Overuse of care also occurs through the lowering of diagnostic treatment thresholds. Several chronic conditions have seen a lowering of threshold values, such as what constitutes hypertension or diabetes, turning more of the population into patients. In fact, changes in thresholds for diabetes, hypertension, hyperlipidemia, and osteoporosis have resulted in more than 64 million new cases of the four diseases, with 42 million alone diagnosed with high cholesterol, according to Gilbert Welch, M.D., professor of medicine at the Dartmouth Institute for Health Policy and Clinical Practice and author of *Overdiagnosed: Making People Sick in the Pursuit of Health*. While there are many reasons to control these chronic conditions early, Welch argues that the lowering of the diagnostic thresholds exposes large numbers of people to becoming patients, with all the attendant side effects and long-term implications of medication regimens.[36] There are conditions where lowering of thresholds is warranted, for example with co-morbid conditions, but caution needs to be exercised in applying those lowered thresholds in initial diagnosis of the general population.

Thus far, we have discussed the need to curb overuse of medical resources; however, we must be careful to not swing the pendulum too far in the other direction. Many screening and diagnostic tests, such as colonoscopies, have been

extremely effective in detecting and reducing cancer mortality. While focused effort is needed to reduce lower-value treatments, we must ensure that high-value interventions with strong clinical evidence of efficacy are broadly adopted.

Approaches Underway to Curb Overuse

As the February 2013 *Health Affairs* highlights in several studies, there is growing evidence that patient involvement and engagement in their health care results in a better patient experience, lower costs and improved outcomes.[37] Empowering patients with greater knowledge of what to expect with disease progression, their options for treatment, and stimulating a more honest dialogue about their desired priorities and outcomes helps minimize discomfort and potential harm from overuse of services while providing truly patient-centered care. In addition, others are working to reduce overuse of certain medical services through increased coordination of care and awareness campaigns about the most appropriate use of health care resources. The *Health Affairs* studies also examined the tools and methods used to reach out to clinicians and patients to begin the dialogue around the appropriate use of health care resources.

Patient engagement

Shared decision-making, whether through national campaigns or more localized approaches, has been hailed as a strong tool in reducing costs and increasing engagement. *The Patient Protection and Affordable Care Act* calls for Shared Decision-Making Resource Centers to help increase patient engagement and improve the use of shared decision-making as part of the clinical practice.[38]

The American Institutes for Research recently proposed a framework for patient and family engagement that defines the levels of engagement as well as the steps across the continuum to help providers, hospitals, and health care delivery systems to develop tools to engage their patients.[39] Informed Medical Decisions Foundation, which develops decision aids, identified several barriers to shared decision-making including overworked and insufficiently trained providers and information systems not equipped to prompt providers about tools or able to track patient involvement. The authors concluded that the use of electronic medical record prompts and the involvement and training of clinicians beyond the treating physician might improve providers' adoption of shared-decision making.[40]

Another study looking at the use of enhanced decision-making support through contact with health coaches "found that patients who received enhanced support had 5.3 percent lower overall medical costs … 12.5 percent fewer hospital admissions … and 9.9 percent fewer preference-sensitive surgeries, including 20.9 percent fewer preference-sensitive heart surgeries."[41] This strong evidence shows that remote intervention by phone and email can improve quality and reduce costs. Another recent report highlights a "patient activation measure" that rates the level of patient engagement in their health care. Reviewing more than 30,000 patients, the study showed the patient activation score was a significant predictor of health care costs with those least engaged incurring the highest costs.[42]

Provider education

Educational offerings for providers around the appropriate use of medical resources are becoming more prevalent and showing positive results. At the same time, work is being done to determine the best ways to disseminate and broadly communicate comparative effectiveness research findings as clinical guidelines and protocols. One study found that academic detailing, "direct outreach education that gives clinicians an accurate

and unbiased synthesis of the best evidence for practice in a given clinical area,"[43] is an effective means of translating findings into clinical actions. Academic detailing appears to improve patient outcomes, reduce costs, and is well received by clinicians. Several states have begun government-sponsored academic detailing programs, and in Canada and Australia, medical professional societies provide these types of programs with support from the government.[44]

The American College of Physicians recently shared recommendations for use of evidence-based performance measures to assess the costs, benefits and potential harms of diagnostic and therapeutic treatments. Many measures to date have focused on the underuse of high-value services, but as more scrutiny is placed on the overuse of low-value services, the report provides guidance on how measures of overuse can be applied in clinical practice.[45] By also focusing on quality measures for overuse, providers would be able to analyze, track, and understand cases of overuse and design quality improvement efforts, which would improve outcomes and reduce costs.

EXAMPLE:

Choosing Wisely

In early 2010, Howard Brody, M.D., Ph.D., director of the Institute of Medical Humanities at The University of Texas Medical Branch, challenged physician specialty societies via the *New England Journal of Medicine* to agree to a list "of five diagnostic tests or treatments that are very commonly ordered … that are among the most expensive services provided, and that have been shown… not to provide any meaningful benefit to at least some major categories of patients for whom they are commonly ordered."[46] Dr. Brody felt that the best way to approach health care reform and the potential for cost cutting was to have physicians take the lead in identifying the places where reductions in cost would not adversely affect care delivery.

Several others took up the challenge, including an article series in the *Archives of Internal Medicine* entitled "Less is More," which tried to dispel the myth that more care is always better. The National Physicians Alliance also took the challenge through its *Promoting Good Stewardship in Clinical Practice* project that outlined steps primary care physicians could take to promote more effective use of health care resources.

In April 2012, the American Board of Internal Medicine Foundation (ABIMF), as part of their ongoing work to help physicians become better stewards of finite health care resources, launched the *Choosing Wisely* campaign, lists of five common procedures or tests whose necessity should be discussed by patients and their physicians. The lists, developed by numerous U.S. medical specialty societies, create a structure for patients and physicians to discuss the appropriateness of certain interventions. The specialty societies' involvement adds credibility, and provides "cover" and legitimacy for physicians and delivery systems to address resource use.

ABIMF also partnered with *Consumer Reports* to create consumer-friendly resources to help patients understand when more care is not better. ABIMF also is working with medical universities to develop tools to assist physicians in beginning these types of conversations with their patients.[47] In February 2013, 17 additional medical specialty societies joined the *Choosing Wisely* movement in releasing recommendations to bring the total to about 130 specific evidence-based recommendations that physicians and patients should consider as part of health care decisions. Currently, more than 42 specialty societies are involved in the campaign, and growing.

EXAMPLE:

National Summit on Overuse

In fall 2012, The Joint Commission and the American Medical Association-convened Physician Consortium for Performance Improvement held a National Summit on Overuse to begin a dialogue around the quality and patient concerns related to overuse of certain procedures. The session shared the work of five advisory panels, each focused on a different intervention, to review the existing evidence on overuse, discuss guidelines and quality measures, and identify strategies key stakeholders could adopt. The groups studied:

- **Elective percutaneous coronary intervention,**
- **Typanostomy tubes for middle ear effusion of brief duration,**
- **Early term non-medically indicated elective delivery,**
- **Appropriate blood management, and**
- **Antibiotics for uncomplicated viral upper respiratory infection.**[48]

The Proceedings from the National Summit on Overuse, **published in July 2013, provides detailed recommendations on curbing overuse of the above interventions and an overview of the program. In addition to specific steps for each of the five areas, the report suggests strategies to inspire physician leadership, support a culture of safety, promote patient education, align incentives to address overuse, and encourages further study and collaboration.**[49]

EXAMPLE:

Safe Use of Medical Imaging

The American Board of Radiology Foundation has held a series of national summits on the safe use of medical imaging to develop a systematic and patient-centered approach. The summits have involved representatives from key stakeholder groups, including patients, regulators, imaging professionals, payers, manufacturers, and systems and facilities management staff. The participants worked to define steps for safe and appropriate use of medical imaging, identify gaps in the process, and agree on approaches to address the gaps. The programs hope to use a consensus approach to develop imaging decision making criteria for patients and physicians to determine the most safe and effective use of imaging studies.

Use of measures

A recently concluded study of ambulatory care services from 1999 to 2009 sought to determine the underuse, misuse, and overuse of 22 quality indicators. The authors found that while the measures for underuse (aspirin for patients with coronary artery disease, use of beta blockers, statin use) improved for six of the nine measures, only two of the 11 overuse measures improved. There were appropriate decreases in cervical cancer screening for women over 65 and in the overuse of antibiotics for asthma, but there was an increase in prostate screening in men older than 75. The authors argue that clinical practice guidelines have been focused on process measures and correcting for underuse rather than overuse. The study indicates that underuse

measures have been easier to track and thus develop more robust guidelines, but the researchers stressed the need to broaden the work to include overuse. Reducing inappropriate care will require the same level of clinical guideline development that has been focused on underuse. While the authors cite efforts by specialty societies to develop appropriateness criteria around specific procedures and tests (such as *Choosing Wisely*), they argue that these have not been widely implemented.[50] However, results are promising thus far on work done using the prevention quality indicators developed by the Agency for Healthcare Research and Quality, which look at admission rates for ambulatory-sensitive condition including diabetes, circulatory diseases, pneumonia and others. From 2005 to 2010, reductions of more than six percent for preventable admissions were recorded.[51]

Hospital and Health System Approaches

As medical societies, provider organizations, and others look for ways to drive appropriate use of medical resources, hospitals and health systems can play an important role in supporting and guiding these efforts within their organizations. As one of the more intense health care resource users, hospitals and health systems have a responsibility to encourage appropriate and consistent use of health care resources and give providers the tools to better communicate with patients about appropriate care.

A thoughtful approach with gradual implementation and conscious effort to minimize unnecessary volatility could reshape health care delivery without causing unnecessary turmoil to what has become a $2.5 trillion industry. Payment reforms will be a factor in this discussion, but to have the greatest opportunity for success in reducing costs and improving health care, we need to ensure that the underlying systems are in place for education around appropriate use of resources, sharing of comparative effectiveness data, the development and adherence to evidence-based clinical protocols, and shared decision-making with engaged patients.

Since health care delivery occurs in the context of a larger system, it is imperative that all parts of that system commit to adherence to appropriateness guidelines and that analysis of practice patterns should be as essential to the efficient operation of a hospital as quality measures and patient safety data. Hospital executives should work in close partnership with their clinical leadership to ensure a coordinated and joint focus on reducing non-beneficial care.

Below are some potential avenues for hospitals and health systems to reduce non-beneficial care and provide support to efforts already underway:

- As more quality measures for overuse of lower value services are developed, hospitals should employ these measures as part of their overall quality efforts and report on findings to their board, medical staff and the field.

- Hospital management should ensure that clinicians are aware of the specialty society clinical practice guidelines and employ them in their clinical decision-making.

- Hospitals should encourage the use and adoption of clinical decision aids and other resources to help physicians better communicate with patients about the most appropriate care pathways.

- Hospitals should provide a structure for patients and their providers to have meaningful conversations about appropriate use of resources. For example, electronic medical records might prompt providers to discuss with patients their care goals and available resources. Hospitals also should identify opportunities for patient engagement.

- Hospitals should employ provider educational opportunities to communicate the implications of shared decision-making and the importance of reducing non-beneficial care.

The AHA with guidance from its Committee on Clinical Leadership, Physician Leadership Forum, regional policy boards, and governing councils and committees examined and discussed appropriate use of medical resources. As a result of our year-long study, the AHA is working to put hospitals at the forefront of innovative change for reduced cost, yet improved health care.

The AHA's Committee on Clinical Leadership, a policy advisory group of clinicians, approved a "top five" list of hospital-based procedures or interventions that should be reviewed and discussed by a patient and physician prior to proceeding**:**

- Appropriate blood management in inpatient services

- Appropriate antimicrobial stewardship[52]

- Reducing inpatient admissions for ambulatory-sensitive conditions (i.e., low back pain, asthma, uncomplicated pneumonia)[53]

- Appropriate use of elective percutaneous coronary intervention[54]

- Appropriate use of the ICU for imminently terminal illness (including encouraging early intervention and discussion about priorities for medical care in the context of progressive disease)[55]

To support efforts by hospitals and health systems to implement this top five list and to better equip our members to engage in the most appropriate use of health care resources, the AHA also is pursuing the following steps:

- Partnering with the medical specialty societies engaged in the *Choosing Wisely* project to more broadly disseminate the lists, tools, and resources available.

- Collecting and disseminating best practices developed to provide a structure for patients and physicians to engage in a dialogue on potential benefits and harms of interventions related to their care.

- Collecting and disseminating sample hospital policies concerning the adherence to clinical practice guidelines in pursuit of more appropriate use of resources.

- Encouraging the medical education community to review whether additional training in medical schools, residency and continuing medical education on reducing non-beneficial care might be warranted.

In addition to assistance with resources, outreach, education, and other approaches, the AHA will continue its advocacy work to ensure that laws and regulations foster a close working relationship between hospitals and providers and health care resources are used as efficiently as possible.

Appropriate Use of Medical Resources

Discussion Guide

Medical knowledge has increased exponentially in the last few decades and clinical knowledge doubles as fast as every two years. Cutting edge surgeries, cures for once devastating diseases, and tools to manage chronic illness have all been great boons to society, allowing more productive lives. But with all this knowledge looms a larger debate, when are we doing more than we should and how do we decide? While specialty medical societies and others have begun to identify areas of overuse and explore methods to measure and reduce it, the role of hospitals and health systems has not been explored in depth.

Appropriate use of medical resources will require a coordinated effort across the care continuum and in partnership with consumers. To begin the discussion in your hospital and community, share the Appropriate Use of Medical Resources white paper with your board, medical staff and community leaders and use the discussion questions below to start to explore the issue together.

Summary of Recommendations

- **The AHA has developed a "top five" list of hospital-based procedures or interventions that should be reviewed and discussed by a patient and physician prior to proceeding:**
  - **Appropriate blood management in inpatient services**
  - **Appropriate antimicrobial stewardship**
  - **Reducing inpatient admissions for ambulatory-sensitive conditions (i.e., low back pain, asthma, uncomplicated pneumonia)**
  - **Appropriate use of elective percutaneous coronary intervention**
  - **Appropriate use of the ICU for imminently terminal illness (including encouraging early intervention and discussion about priorities for medical care in the context of progressive disease)**
- As more measures for overuse are developed, hospitals should employ these as part of their overall quality efforts and report on findings.
- Hospital management should be aware of clinical practice guidelines and ensure that clinicians are aware and employ the guidelines.
- Hospitals should encourage the use and adoption of clinical decision aids and other communication resources.
- Hospitals should provide a structure and method for patients and their providers to have meaningful conversations about appropriate use of resources.
- Hospitals should employ available educational opportunities for staff and providers on appropriate use of resources.

Questions	
Rate the readiness of our organization to accept the AHA's "top five" recommendations. (5 = very prepared, 1 = not at all prepared)	
What do you see as the key challenges for our organization to reducing non-beneficial care?	
How do the recommendations affect our organization's business model and planning?	
What tools and resources will we need to implement the recommendations?	
How can we begin to engage our community and patients in this discussion?	

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Note: As of 2016, more than 475 recommendations from 75 participating societies have been developed. The campaign has also expanded to include other clinician groups such as nurses, physical therapists and dentists.

Appropriate Use of Medical Resources

Blood Management Toolkit

American Hospital Association's PHYSICIAN LEADERSHIP FORUM

AABB®

American Hospital Association®

Blood Management Toolkit

Developed with resources from AABB
To access the toolkit, visit www.aha.org/appropriateuse

User Guide

The toolkit is composed of three sections:

Hospital and Health System Resources - includes a readiness assessment tool - the starting point in developing a successful model of Patient Blood Management (PBM). The readiness assessment tool should be shared with senior management, senior leaders for quality, blood management professionals, transfusion committees, purchasing directors, clinic managers, nurse managers, key physician leaders, risk managers and human resources directors. Also included in this section are resources supporting the benefits of appropriate use of PBM, and frequently asked questions.

Clinician Resources - includes a webinar, clinical evidence supporting appropriate use, implementation instructions, and an iPhone application.

Patient Resources - includes a guide on how patients can best engage in their care.

The AABB Readiness Assessment Tool

This online self-assessment tool will assist hospitals in pinpointing their readiness for adopting a formal PBM program. Completing the self-assessment will result in a set of recommendations about next steps for PBM program implementation and resources. To begin the self-assessment, go to http://bit.ly/1I4iEzL.

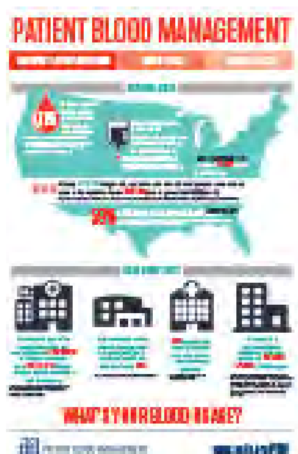
Hospital and Health System Resources

National Blood Collection and Utilization Survey (NBCUS) Patient Blood Management Chapter

Conducted by AABB, the U.S. Department of Health and Human Services' NBCUS report offers a comprehensive analysis of the collection and utilization of blood, blood products and cellular therapies in the United States. For the first time, in this most recent survey, a chapter was devoted to hospital PBM practices. To download, go to http://bit.ly/1hIVels.

PBM Frequently Asked Questions (FAQs)

Developed by AABB, this document includes the definition of PBM and requirements for an impactful and sustainable hospital-based program. To download, go to http://bit.ly/1iqnY1j.



AABB PBM Infographic

This infographic highlights blood usage statistics and overuse as well as some results in patient safety improvements and cost savings from the implementation of a PBM program. To download, go to http://bit.ly/1vmJQmi.

Building a Better Patient Blood Management Program

This AABB white paper provides health care professionals tools to overcome common hurdles associated with starting a PBM program. To access, go to http://bit.ly/1IwyYID.

Clinician Resources

PBM Webinar

This webinar includes data and compelling evidence for the use of PBM to improve care and lower costs. The webinar features Mark H. Ereth, M.D., Emeritus Professor of Anesthesiology, Mayo Clinic College of Medicine, and PBM consultant. For more information or to view the recording, go to http://bit.ly/Qb4Z0d.

AABB's "Getting Started in Patient Blood Management"

This primer thoroughly discusses five major concepts in PBM: 1) limiting blood loss through phlebotomy for testing, 2) optimizing patient hemoglobin levels, 3) intraoperative blood recovery techniques, 4) minimizing perioperative blood loss, and 5) making evidence-based hemotherapy decisions. Also included are practical suggestions for taking initial positive steps toward program implementation, sample forms and reports, as well as helpful print and online resources. To download, go to http://bit.ly/RpKDkM.

AABB's Citations in Patient Blood Management

Approximately 1800 reference citations on PBM have been assembled by topic and subtopic in this convenient, useful resource. Compiled by Dr. James P. AuBuchon, MD, FCAP, FRCP(Edin), this compendium includes English articles listed in PubMed from January, 2010 through June, 2014. To download, go to http://bit.ly/1F0odK4.

"Red Blood Cell Transfusion: A Clinical Practice Guideline from the AABB"

This guideline – which was published in July 2012 in the *Annals of Internal Medicine* – provides clinical recommendations about hemoglobin concentration thresholds and other clinical variables that trigger red blood cell transfusions in hemodynamically stable adults and children. To download, go to http://bit.ly/QnZ7AG.

iPhone App

The AABB iPhone app includes three valuable PBM resources:

- The Red Blood Cell Transfusion Data Card summarizes clinical practice guidelines for the transfusion of red blood cells to adults and pediatric patients.
- The Blood Transfusion Therapy Data Card details the management of acute transfusion reactions.
- The Circular of Information for the Use of Human Blood and Blood Components provides an extensive review of licensed and some unlicensed blood and blood components, their indications for use, special precautions, instructions for administration, and adverse effects of transfusion.

For more information, go to http://bit.ly/1gD6uy5.

Patient Resources

PBM Patient Handout

This handout, developed by AABB, is provided as a resource to patients who may need transfusion and for the health care professionals treating them. It answers common questions about transfusion and PBM. To download, go to http://bit.ly/1eRhjIJ.

Appropriate Use of Medical Resources

Antimicrobial Stewardship Toolkit

Antimicrobial Stewardship Toolkit

To access the toolkit, visit www.aha.org/appropriateuse.
Developed with resources from:
Association for Professionals in Infection Control and Epidemiology (APIC)
American Society of Health-System Pharmacists (ASHP)
Centers for Disease Control and Prevention (CDC)
Infectious Diseases Society of America (IDSA)
Pediatric Infectious Diseases Society (PIDS)
Society for Healthcare Epidemiology of America (SHEA)
Society of Hospital Medicine (SHM)

User Guide

The toolkit is composed of three sections:

Hospital and Health System Resources - includes a readiness assessment tool, the starting point in developing or enhancing a successful Antimicrobial Stewardship Program (ASP). The tool, a checklist developed by the CDC, should be shared with senior management, a senior leader for quality, purchasing directors, clinic managers, nurse managers, key physician leaders, risk managers, pharmacy leaders, infection preventionists and hospital epidemiologists, laboratory staff and information technology staff. For ease of use, it is divided into two sections, one for those just beginning a program, the other for those who wish to enhance an existing program.

Clinician Resources - includes webinars, clinical evidence supporting appropriate use of antibiotics, implementation guides and related articles.

Patient Resources - includes frequently asked questions, pamphlets and handouts on how patients can best engage in their care and resources on appropriate use of antibiotics.

The CDC Assessment Tool

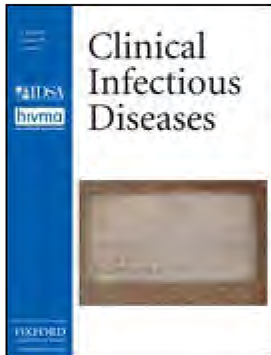
This checklist will assist hospitals in assessing key elements needed for creating a program that ensures optimal antibiotic prescribing and appropriate use. The key elements of a successful ASP include leadership commitment, accountability, drug expertise, action, tracking, reporting and education. To access the checklist, go to http://bit.ly/1pgmuw4.

Hospital and Health System Resources

GETTING STARTED

CDC Core Elements of Hospital Antibiotic Stewardship Programs
This document summarizes core elements of successful hospital ASPs. It complements existing guidelines on ASPs from organizations including the IDSA in conjunction with SHEA, ASHP and The Joint Commission. Experience demonstrates that ASPs can be implemented effectively in a wide variety of hospitals and health systems and that success is dependent on defined leadership and a coordinated multidisciplinary approach. To download, go to http://bit.ly/1mkf6MJ.

Antibiotic Rx in Hospitals: Proceed with Caution
This fact sheet from CDC illustrates how antibiotics save lives, but poor prescribing practices put patients at unnecessary risk for preventable allergic reactions, super-resistant infections and deadly diarrhea. Errors in prescribing decisions also contribute to antibiotic resistance, making these drugs less likely to work in the future. To download, go to http://bit.ly/1iuBhQY.



Guidelines for Developing an Institutional Program to Enhance Antimicrobial Stewardship

A joint SHEA/IDSA task force presents guidelines for developing institutional programs to enhance antimicrobial stewardship, an activity that includes appropriate selection, dosing, route and duration of antimicrobial therapy. These guidelines, published in the journal *Clinical Infectious Diseases*, focus on the development of effective hospital-based stewardship programs and do not include specific outpatient recommendations. To download, go to http://bit.ly/1IOKSCO.

Policy Statement on Antimicrobial Stewardship by SHEA, IDSA and PIDS

This position statement recommends the mandatory implementation of antimicrobial stewardship throughout the health care continuum, suggests process and outcome measures to monitor these interventions and addresses deficiencies in education and research in this field as well as the lack of accurate data on antimicrobial use in the United States. To download, go to http://bit.ly/1q5IAkw.

ASHP Statement on the Pharmacist's Role in Antimicrobial Stewardship and Infection Prevention and Control

Pharmacists have a responsibility to take prominent roles in ASPs and participate in the infection prevention and control programs of hospitals and health systems. Pharmacists' responsibilities for antimicrobial stewardship and infection prevention and control include promoting the optimal use of antimicrobial agents, reducing the transmission of infections and educating health professionals, patients and the public. To download, go to http://bit.ly/1qHxaDu.

ENHANCING an EXISTING PROGRAM

CDC Vital Signs: Improving Antibiotic Use among Hospitalized Patients

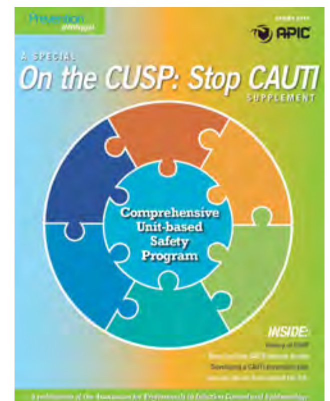
Antibiotic prescribing for inpatients is common, and there is ample opportunity to improve use and patient safety by reducing incorrect antibiotic prescribing. Hospital administrators and health care providers can reduce potential harm and risk for antibiotic resistance by implementing formal programs to improve antibiotic prescribing in hospitals. To download, go to http://bit.ly/1q5IMjA.

Guidelines for the Prevention of Antimicrobial Resistance in Hospitals

This joint SHEA/IDSA task force publication details how antimicrobial resistance results in increased morbidity, mortality and costs of health care. Prevention of the emergence of resistance and the dissemination of resistant microorganisms will reduce these adverse effects and their attendant costs. Appropriate antimicrobial stewardship that includes optimal selection, dose and duration of treatment, as well as control of antibiotic use, will prevent or slow the emergence of resistance among micro-organisms. A comprehensively applied infection control program will interdict the dissemination of resistant strains. To download, go to http://bit.ly/1InJDZT.

On the CUSP: Stop CAUTI Supplement from APIC

This supplement features success stories from facilities that have joined the *On the CUSP: Stop CAUTI* program, strategies for engaging others in CAUTI prevention, insight from experts on the program's core national faculty, ways for health care organizations to be part of the program and frequently asked questions. To download, go to http://bit.ly/1o0v7qX.



Clinician Resources

IMPLEMENTATION GUIDES and TOOLS

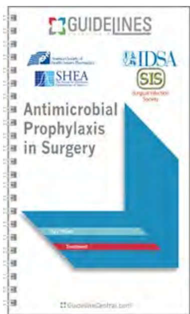
Assessment of Appropriateness of Antibiotics

The primary goal of antibiotic stewardship efforts is to optimize the use of antibiotics. However, assessing "optimal" or "appropriate" antibiotic use remains a challenge. To begin addressing the challenge, CDC, in consultation with a variety of external experts, has developed assessment tools that can help facilities explore potential opportunities for improving antibiotic use. These forms draw heavily from existing treatment guidelines to identify variations in diagnostic evaluation and antibiotic use that deviate from general recommendations, such as:

- Urinary Tract Infections
- Community-Acquired Pneumonia
- Resistant Gram-Positive Infections
- Inpatient Antibiotics

Tools and Sample Forms

This resource, from SHEA's Antimicrobial Stewardship task force, includes tools such as an adult inpatient antibiotic approval form, a blank order set for antifungal therapy, a sample checklist, a drug use evaluation form and others. To view the materials and forms, go to http://bit.ly/2b8Wpe6.



Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery

Authored by ASHP, IDSA, the Surgical Infection Society (SIS) and SHEA these guidelines are intended to provide practitioners with a standardized approach to the rational, safe and effective use of antimicrobial agents for the prevention of surgical-site infections based on currently available clinical evidence and emerging issues. To download, go to http://bit.ly/1InJPZe.

CASE EXAMPLES:

MASSACHUSETTS COALITION

The initiative, Improving Evaluation & Treatment of UTI in the Elderly: Antibiotic Stewardship in Long-Term Care and Hospitals, supports long-term care facilities, long-term acute care hospitals, and hospital emergency departments to improve evaluation and treatment of urinary tract infection and asymptomatic bacteriuria in order to reduce the inappropriate use of antibiotics. To view the educational webinars and tools, go to http://bit.ly/1tw6EPd.

ASP in a RURAL HOSPITAL

In ASHP's *American Journal of Health-System Pharmacy*, the authors describe implementation of a pharmacy-directed ASP involving the use of telemedicine technology. Concluding such implementation led to increases in pharmacist-recommended interventions and streamlining of antimicrobial therapy, as well as decreases in health care-associated *C. difficile* infections and antimicrobial purchasing costs. To download, go to http://bit.ly/2aohwvU.

CALIFORNIA ASP EFFORT

California law requires that general acute care hospitals implement programs for monitoring the judicious use of antibiotics and requires a quality improvement committee with responsibility for oversight. California is the only state with this type of mandate. This web page highlights hospital's work and shares their antimicrobial stewardship program strategies and progress. Also identified are California physician, pharmacists and infection prevention leaders willing to serve as mentors to other hospitals in various stages of antimicrobial stewardship program implementation. To view, go to http://bit.ly/1l9AQpy.

HOSPITALS with ASPs

Compiled by SHEA, this web page provides links to organizations with antimicrobial initiatives underway such as Grady Health System, Cleveland Clinic, Johns Hopkins Hospital, Nebraska Medical Center, University of Kentucky Hospital, University of Pennsylvania Health System and the University of California, San Francisco. To view, go to http://bit.ly/2aZG7YV.

RESOURCES and ARTICLES

"Antimicrobial Stewardship: A Collaborative Partnership between Infection Preventionists and Health Care Epidemiologists" from APIC

Infection preventionists and health care epidemiologists play key roles in promoting effective antimicrobial stewardship in collaboration with other health professionals, according to a joint position paper published by APIC and SHEA in their respective peer-review journals, the *American Journal of Infection Control* and *Infection Control and Hospital Epidemiology*. To download, go to http://bit.ly/1I7ZPyo.

Infection Prevention + Antimicrobial Stewardship = Synergy

In the APIC quarterly member magazine, *Prevention Strategist,* Julia Moody, MS, SM (ASCP), shares a case study and explains the infection preventionist's and health care epidemiologist's role in antimicrobial stewardship. To download, go to http://bit.ly/1INwAR4.

Clinical and Economic Outcomes of a Prospective Antimicrobial Stewardship Program

In ASHP's *American Journal of Health-System Pharmacy*, the authors found antimicrobial expenditures, which had increased by an average of 14.4 percent annually in the years preceding ASP implementation, decreased by 9.75 percent in the first year of the program and remained relatively stable in subsequent years, with overall cumulative cost savings estimated at $1.7 million. Rates of nosocomial infections involving *Clostridium difficile*, methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant enterococci all decreased after ASP implementation. To download, go to http://bit.ly/Vl7JuV.

Antimicrobials and Resistance

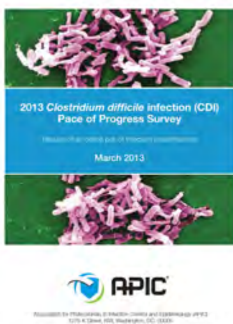
This chapter from the 4th edition of *APIC Text of Infection Control and Epidemiology* discusses that although infection prevention traditionally has approached the problem of resistance primarily from the aspect of preventing transmission, more needs to be done to control how antimicrobials are commonly used. To download, go to http://bit.ly/VlfL75 and click on the blue bar that reads, "Download a free chapter of the APIC Text on 'Antimicrobials and Resistance.'"

ASHP Guidelines on Pharmacist-Conducted Patient Education and Counseling

A coordinated effort among health care team members will enhance patients' adherence to pharmacotherapeutic regimens, monitoring of drug effects and feedback to the health system. ASHP believes these patient education and counseling guidelines are applicable in all practice settings—including acute inpatient care, ambulatory care, home care and long-term care—whether these settings are associated with integrated health systems, managed care organizations or are freestanding. To download, go to http://bit.ly/1lNwau2.

Antimicrobial Stewardship and Clostridium difficile *Infection: A Primer for the Infection Preventionist*

This chapter, in *Guide to Preventing Clostridium difficile Infections (CDI), an APIC Implementation Guide*, discusses antimicrobial use and its impact on patients in all healthcare settings and ASPs within the context of CDI. To download, go to http://bit.ly/1iuCg3F.



APIC 2013 Clostridium difficile *infection "Pace of Progress" survey*

Activities to stop the spread of the intestinal superbug *Clostridium difficile (C. diff)* are on the rise, but they are not yielding large improvements, according to a nationwide survey. According to the survey, 70 percent of infection preventionists have adopted additional interventions in their health care facilities to address CDI since March 2010, but only 42 percent have seen a decline in facility-associated CDI rates; 43 percent have not seen a decline. While CDI rates have climbed to all-time highs in recent years, few facilities (21 percent of respondents) have added more infection prevention staff to address the problem. To download, go to http://bit.ly/1q5JZr7.

Pediatric Stewardship Resources

Resources are available from SHEA that are specific to pediatric antimicrobial stewardship. To view, go to http://bit.ly/2aA5j4t.

Research Bibliography

A bibliography on antimicrobial stewardship published in the *Infection Control and Hospital Epidemiology* journal available from SHEA can be found at http://bit.ly/2aAWt7P.

WEBINARS

Antimicrobial Stewardship: The Hospital Opportunity

The webinar features Dr. Arjun Srinivasan of the CDC and Dr. Howard Gold of Beth Israel Deaconess Medical Center sharing compelling evidence for antimicrobial stewardship to improve care and lower cost. To view the recording or download the presentation slides, go to http://bit.ly/1q5KjX0.

Antimicrobial Stewardship: What the Infection Preventionist Needs To Know

Provided by APIC, this webinar features Keith S. Kaye, MD, MPH who defines antimicrobial stewardship, discusses goals and components of an ASP, as well as details the role and collaboration of the infection preventionist with an antimicrobial stewardship team. To view, go to http://bit.ly/1rHoLO4.

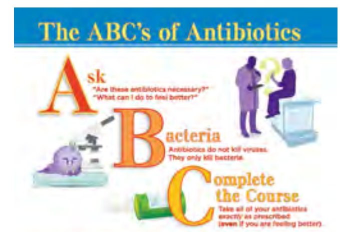
From Tragedy to Triumph to Trepidation: Antibiotics at Age 70

Provided by APIC, this webinar features Stephen M. Brecher, PhD, who explains how the war in England, then in the US, a famous fire in Boston and a football game all played a role in making penicillin the "Miracle Drug." With many new antibiotics, the war against infectious diseases seemed won. The problem, however, was that the bacteria did not read the press clippings. Antibiotics at Age 70 is the story of tragedy then triumph and now trepidation. To view, go to http://bit.ly/1mm08kS.

Patient Resources

The ABC's of Antibiotics

This infographic from APIC helps patients and families better understand their role in preventing infections and includes a list of questions to ask their healthcare provider about antibiotics.To download, go to http://bit.ly/XiIDg6.



Antibiotics Aren't Always the Answer

This fact sheet from the CDC briefly explains six simple and smart facts about antibiotic use and when antibiotics can help treat your child's illness. To download, go to http://bit.ly/1mc1Yo8.

Cold or Flu. Antibiotics Don't Work For You.

This tri-fold brochure from the CDC briefly explains the difference between bacteria and viruses and how bacteria become resistant. It also answers some common questions about when it is and is not appropriate to use an antibiotic. To download, go to http://bit.ly/1pyTxHt.

Ask Questions about Your Medicines

This guide from APIC explains to patients when antibiotics work, when they don't and when prescribed why it's important to finish the course of antibiotics as the prescriber recommends. To view, go to http://bit.ly/1o0wmGw.

FAQs about Clostridium difficile

A list of common patient questions about CDI, such as who is most likely to get it, how it is treated and how contraction can be prevented are included in this handout co-sponsored by SHEA, IDSA, AHA, APIC, CDC and The Joint Commission. To download, go to http://bit.ly/1rvhzo6.

What You Need to Know about Clostridium difficile

This article from APIC explains what Clostridium difficile is, the symptoms, who is at risk, how it's diagnosed, treated and can be prevented.To view, go to http://bit.ly/1mc2jY6.

Appropriate Use of Medical Resources

Ambulatory Care Sensitive Conditions Toolkit

American Hospital Association's PHYSICIAN LEADERSHIP FORUM

ACP American College of Physicians Leading Internal Medicine, Improving Lives

American Hospital Association®

Ambulatory Care Sensitive Conditions Toolkit

To access the toolkit, visit www.aha.org/appropriateuse.

Developed with resources from:
Agency for Healthcare Research and Quality (AHRQ)
American Academy of Family Physicians (AAFP)
American College of Physicians (ACP)
Centers for Disease Control and Prevention (CDC)
National Heart, Lung and Blood Institute (NHLBI)

User Guide

The toolkit is composed of three sections:

Hospital and Health System Resources - for senior management, senior leaders for quality, clinic managers, nurse managers, key physician leaders, risk managers and human resources directors, this section includes guides, fact sheets and resources supporting management of ambulatory care sensitive conditions (ACSC).

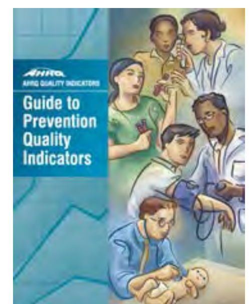
Clinician Resources - includes clinical evidence for management of specific ACSCs, frequently asked questions and a report on the impact of integrated care on preventing hospitalization.

Patient Resources - includes action plans, frequently asked questions and resources for patients on how to best engage in their care and prevent hospitalizations for ACSCs.

Hospital and Health System Resources

Ambulatory Sensitive Condition Admissions: Opportunities and Challenges Webinar

This webinar, on Monday, December 15 at 3:00 pm ET, will share a case example of how reducing preventable inpatient admissions for ACSCs can improve care and lower costs. The webinar will feature Dana L. Gilbert, chief operating officer and Sharon Rudnick, vice president Outpatient Enterprise Care Management of Advocate Physician Partners (Illinois) who will share their experience in reducing admissions for ACSCs. To register, go to http://bit.ly/2aA589w.



Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions

This guide, developed by AHRQ, provides information on Prevention Quality Indicators (PQIs), which are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for ACSCs. To download, go to http://bit.ly/1u8g18U.

Million Hearts® Begins with You Infographic and Fact Sheet

Million Hearts® is a national initiative launched by the Department of Health and Human Services in September 2011 to prevent 1 million heart attacks and strokes by 2017. To download, go to http://bit.ly/ZYaHa2.

TeamSTEPPS™: Team Strategies and Tools to Enhance Performance and Patient Safety
This article, included in *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 3: Performance and Tools)*, describes the TeamSTEPPS program developed by the Department of Defense and AHRQ. TeamSTEPPS integrates teamwork into practice to improve the quality, safety and the efficiency of health care. To download, go to http://bit.ly/1uFyPqv.

Re-Engineered Discharge (RED) Toolkit

Boston University Medical Center (BUMC) developed and tested methods of improving the discharge process, which they called the Re-Engineered Discharge (RED). AHRQ contracted with BUMC to develop this toolkit to assist hospitals in replicating RED. Tools include steps on how to begin implementation of RED, deliver and then monitor outcomes. To download, go to http://bit.ly/1xy06Br.

Selections from Guide to Patient and Family Engagement in Hospital Quality and Safety
AHRQ developed this evidence-based resource to help hospitals work as partners with patients and families to improve quality and safety. These three resources from the "Information to Help Hospitals Get Started" section address how the guide can benefit hospitals, four broad steps to start the process of using the strategies and tools found in the guide as well as specific suggestions on how hospital and health system leaders can foster a supportive environment for patients and their families. To download, go to http://bit.ly/1yNbneg.

CASE EXAMPLES:

Each year, AHA honors up to five programs as "bright stars of the health care field" with the AHA NOVA Award. Winners are recognized for improving community health by looking beyond the hospital walls, working collaboratively to address health status and rooting out the economic or social barriers to care. Four of the 2014 winners are programs addressing ACSCs. For more information, go to www.aha.org/NOVA.

FirstHealth of the Carolinas North Carolina
With more than 20 percent of local residents diagnosed with diabetes, FirstHealth of the Carolinas reaches out beyond the hospital's walls with FirstReach. The program has three goals: increase residents' awareness of signs and symptoms, implement early diagnosis, and improve management and compliance through education and primary care coordination. For more information, go to http://bit.ly/1Eqtmcg.

Greenville Health System South Carolina
In 2008, the Children's Hospital Center for Pediatric Medicine created an Asthma Action Team in response to a growing number of pediatric asthma-related crises and treatment disparities. It improves asthma care by identifying cases, increasing awareness, and providing education and evidence-based treatment and case management. It is multi-disciplinary and multicultural, but targets low-income and underserved populations. The ultimate goal is better coordination of patient care to enhance the family's quality of life and to prevent asthma-related emergency department visits and hospitalizations. For more information, go to http://bit.ly/1pO6QZP.

Maine Medical Center/MaineHealth Maine
"Let's Go!" is a program led by the Barbara Bush Children's Hospital at the Maine Medical Center aiming to improve fitness and fight obesity in youth, as obesity carries many known health risks from high blood pressure and arthritis, to diabetes and heart disease. Initiatives take place in child care centers, schools, workplaces and community settings, as well as physicians' offices. For more information, go to http://bit.ly/1v0STcZ.

New Ulm Medical Center, part of Allina Health Minnesota
The Hearts Beat Back: The Heart of New Ulm (HONU) Project is a community-driven initiative to reduce heart attacks in New Ulm, Minn. Free heart health screenings are held at workplaces, churches and community centers, also assessing nutrition, tobacco use, stress and physical activity.High-risk patients are proactively identified and receive monthly phone calls from a dietitian or nurse. Restaurants and convenience stores have added and promoted healthy options. For more information, go to http://bit.ly/1EqtIj9.

Hospital Admissions and Costs for Potentially Preventable Conditions in Adults, 2006
This fact sheet from ACP shows at a glance hospital costs for potentially preventable conditions. To download, go to http://bit.ly/1tDydFn.

More May Be Better: Evidence of a Negative Relationship between Physician Supply and Hospitalization for Ambulatory Care Sensitive Conditions
Using data compiled by AHRQ, this *Health Services Research* article finds greater physician supply is associated with lower ACSC rates in all age groups. To download, go to http://bit.ly/103a1Ae.

How is a Shortage of Primary Care Physicians Affecting the Quality and Cost of Medical Care
This white paper, released by ACP, reviews more than 100 studies over a 20-year period finding the critical importance of primary care in providing patients with better outcomes at lower cost, and the urgency of the need to prevent shortages of primary care physicians. To download, go to http://bit.ly/1wdoKWf.

Keeping Children Out of Hospitals: Parents' and Physicians' Perspectives on How Pediatric Hospitalizations for Ambulatory Care Sensitive Conditions Can Be Avoided
Published in *Pediatrics*, this article finds many "pediatric hospitalizations might be avoided if parents and children were better educated about the child's condition, medications, the need for follow-up care, and the importance of avoiding known disease triggers. Direct assessment by parents and physicians of hospitalized children can be an informative way to examine the proportion of avoidable pediatric hospitalizations and how they can be prevented." To download, go to http://bit.ly/1039LRQ.

Clinician Resources

Strategies for Reducing Potentially Avoidable Hospitalizations for Ambulatory Care Sensitive Conditions
Published in *Annals of Family Medicine*, this article finds "primary care physicians rated a significant proportion of hospitalizations for ACSC to be potentially preventable." The article offers strategies aimed at reducing the number of avoidable hospitalizations which in turn can increase quality of care and decrease health care expenditures. To download, go to http://bit.ly/1yOQ7py.

High-Value Care Coordination Toolkit
Created by ACP's Council of Subspecialty Societies (CSS) and patient advocacy groups, the High-Value Care Coordination toolkit provides resources to facilitate more effective and patient-centered communication between primary care and subspecialist doctors. The toolkit includes data sets, checklists, a guide for facilitating discussion with patients and care coordination agreements. To view, go to http://bit.ly/1tji5au.

Model Specialty Out-Patient Referral Response Checklist*

High-Value, Cost-Conscious Health Care: Concepts for Clinicians to Evaluate the Benefits, Harms, and Costs of Medical Interventions
This article, published in ACP's journal *Annals of Internal Medicine*, discusses three key concepts for understanding how to assess the value of health care interventions. To download, go to http://bit.ly/1sO6x0q.

Potentially Preventable Hospitalizations — United States, 2001–2009

This CDC Morbidity and Mortality Weekly Report (MMWR) discusses reducing hospitalization rates as a key to controlling health care costs. For many chronic conditions, inpatient costs are the dominant expense. Using diabetes as an example, approximately half of the expenditures of persons with diabetes are spent on hospital inpatient care, compared with 12 percent spent on diabetes medications and supplies and 9 percent spent on physician office visits. The CDC has published articles on preventable hospitalizations for specific conditions including:

- Angina
- Congestive Heart Failure
- Hypertension

Asthma's Impact on the Nation
Data from the CDC National Asthma Control Program
1 in 11 children has asthma
1 in 12 adults has asthma

Outpatient Management Practices Associated With Reduced Risk of Pediatric Asthma Hospitalization and Emergency Department Visits

Published in *Pediatrics*, this article finds "practices that support early intervention for asthma flare-ups by parents at home, particularly written management plans, are strongly associated with reduced risk of adverse outcomes among children with asthma." To download, go to http://bit.ly/1DASbDS.

Asthma's Impact on the Nation

Frequently asked questions and statistics from the CDC National Asthma Control Program. To download, go to http://bit.ly/1tDyKXP.

Reducing Readmissions for Congestive Heart Failure

In this *American Family Physician* article, authors Robert E. Hoyt, CAPT, MC, USN, and Lester Shawn Bowling, LTCR, MC, USN address "hospital admission for congestive heart failure [which] is extremely common and quite expensive, although it is frequently preventable." To download, go to http://bit.ly/1wtJzwo.

Diagnosis and Management of Community-Acquired Pneumonia in Adults

Authors Richard R. Watkins, MD, MS, and Tracy L. Lemonovich, MD discuss studies and guidelines for community-acquired pneumonia in adults published since the 2006 *American Family Physician* review of the topic. To download, go to http://bit.ly/1wowWAX.

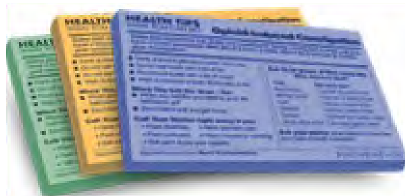
Gastroenteritis in Children

A two-part article by authors Catherine A. Churgay, MD, and Zahra Aftab, MD, published in *American Family Physician*, discusses diagnosis (Part 1) as well as prevention and management (Part 2). To download, go to http://bit.ly/1tc63SZ.

HEALTH TiPS

Developed by ACP, HEALTH TiPS are meant to improve the clinician-patient encounter by facilitating a focus on the key information needed to manage each health condition. HEALTH TiPS can be downloaded in an electronic format, or as a pad of 50 two-sided 4"x6" tear-off sheets. Conditions HEALTH TiPS cover include:

- Asthma
- COPD
- Diabetes
- Hypertension
- Low Back Pain

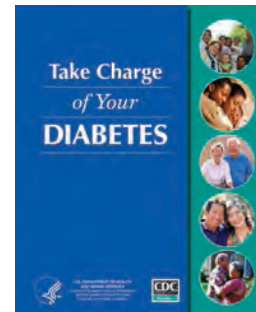


Patient Resources

Choosing a Type 2 Diabetes Drug

Lifestyle changes alone can sometimes lower blood sugar levels enough that drugs aren't needed to treat Type 2 Diabetes. And when they are, the best first choice usually isn't one of the newer, heavily advertised ones on the market. One of ACP's High-Value Care resources in collaboration with *Consumer Reports* derived from ACP's evidence-based clinical practice recommendations published in *Annals of Internal Medicine*, this article helps patients understand benefits, harms and costs of treatments for Type 2 Diabetes. To download, go to http://bit.ly/ZCDHo0.

CDC's Take Charge of Your Diabetes



This book helps patients take important steps to prevent problems caused by diabetes, understand how to work with a health care team to prevent problems, why it is important to get blood glucose and blood pressure closer to normal and how to utilize resources in the community to prevent problems. To download, go to http://bit.ly/1vhpVzO.

Asthma Action Plan

From the National Heart, Lung and Blood Institute, this tool includes a guide on avoiding asthma triggers and daily treatment, such as what kind of medicines to take and when to take them. The plan describes how to control asthma long term and how to handle worsening asthma or attacks as well as explains when to call the doctor or go to the emergency room. To download, go to http://bit.ly/1nQIRb1.

Living with COPD: An Everyday Guide for You and Your Family

This self-management guide developed by ACP covers areas such as living well with COPD, getting the most out of medicines, becoming more active, planning for when breathing gets worse and smoking cessation. To download, go to http://bit.ly/1rt5c9O.

Caring for Your Heart: An Everyday Guide for You and Your Family

This ACP guide informs patients how to eat right, be active, get the most from medications prescribed, understand feelings, respond to chest pains and free themselves from smoking. To download, go to http://bit.ly/1tspLbW.

CDC's High Blood Pressure FAQ

Frequently asked questions such as what blood pressure levels are healthy, and tips to maintain normal levels, avoiding hospitalization. To download, go to http://bit.ly/1yIi9lU.

How to Stay Out of the Hospital if You Have Congestive Heart Failure

This patient information handout, written by the authors of *Reducing Readmissions for Congestive Heart Failure* found in AAFP's *American Family Physician*, answers frequently asked questions. To download, go to http://bit.ly/12cgcUa.

Imaging Tests for Low Back Pain

One of ACP's High-Value Care resources in collaboration with *Consumer Reports* derived from ACP's evidence-based clinical practice recommendations published in *Annals of Internal Medicine*, this article helps patients understand benefits, harms and costs of tests for low back pain. To download, go to http://bit.ly/1sDTBK8.

Webinar

Ambulatory Sensitive Condition Admissions: Opportunities and Challenges

The webinar shares a case example of how reducing preventable inpatient admissions for ACSCs can improve care and lower costs. The webinar will features Dana L. Gilbert, chief operating officer and Sharon Rudnick, vice president Outpatient Enterprise Care Management of Advocate Physician Partners (Illinois). View the archived presentation at http://www.ahaphysicianforum.org/webinar/2014/ACSC/index.shtml.

Appropriate Use of Medical Resources

Elective Percutaneous Coronary Intervention Toolkit

Developed with resources from:

AMERICAN COLLEGE of CARDIOLOGY

American Heart Association
life is why

The Society for Cardiovascular Angiography and Interventions

Elective Percutaneous Coronary Intervention Toolkit

To access the toolkit, visit www.aha.org/appropriateuse.
Developed with resources from:
American College of Cardiology (ACC)
American Heart Association
The Society for Cardiovascular Angiography and Interventions (SCAI)

User Guide

The toolkit is composed of three sections:

Hospital and Health System Resources – for senior management, senior leaders for quality, clinic managers, nurse managers, key physician leaders and risk managers this section includes quality improvement resources and links to the National Cardiovascular Data Registry®.

Clinician Resources – for clinicians, this section includes mobile applications, guidelines and clinical evidence supporting the appropriate use of elective percutaneous coronary interventions.

Patient Resources – for patients, this section includes resources to understand the best use of angioplasty and how to obtain the right tests and treatments.

Hospital and Health System Resources

American Heart Association's Get With The Guidelines® and Mission: Lifeline®

Get With The Guidelines®, a suite of hospital-based quality improvement programs and registries, offers online tools to provide patient-specific guidelines and track their adherence. Get With The Guidelines® helps hospitals follow the most up-to-date, research-based treatment guidelines, reducing gaps and disparities in the delivery of quality care, while supporting high value registries for cardiovascular research. To access, go to http://bit.ly/1HjsLQ0.

SCAI's 2016 Quality Improvement Toolkit

This toolkit includes information on guidelines, peer review conferences, national database participation, pre-procedure checklists, data collection and inventory management. The toolkit assists hospitals and health systems in identifying strengths as well as opportunities for improvement. To view, go to http://bit.ly/1DrZdve.

National Cardiovascular Data Registry® (NCDR) CathPCI Registry®

An ACC initiative, with SCAI partnering support, the CathPCI Registry® "assesses the characteristics, treatments and outcomes of cardiac disease patients who receive diagnostic catheterization and/or percutaneous coronary intervention (PCI) procedures. This powerful tool captures the data that measure adherence to ACC/American Heart Association clinical practice guideline recommendations, procedure performance standards and appropriate use criteria for coronary revascularization." To access, go to http://bit.ly/1baOeND.

Understanding the Reporting of Appropriateness Use Criteria in the CathPCI Registry®

This guide explains how to interpret the Institutional Feedback Report organizational self-assessments of the appropriateness of PCI procedures at the hospital level. Each report includes the institution's rate of appropriate, uncertain and inappropriate procedures for PCIs in patients with acute coronary syndromes and non-acute presentations of coronary artery disease allowing participating hospitals to become more informed about their use of PCI and determine whether there are opportunities to improve the patients selected for coronary revascularization. To download, go to http://bit.ly/1CVJjFV.

ACC Quality Improvement for Institutions Program

The ACC Quality Improvement for Institutions program gives health care institutions a comprehensive suite of cardiovascular registries and service solutions that supports quality clinical care and improves patient outcomes. To view, go to http://bit.ly/1cDEbAU.

Expert Consensus Document: 2014 Update on PCI without On-Site Surgical Backup

This study updates work on the performance of PCI without onsite surgery, recommendations and best practices for facilities engaged in PCI without on-site surgery. To download, go to http://bit.ly/1Df6DBZ.

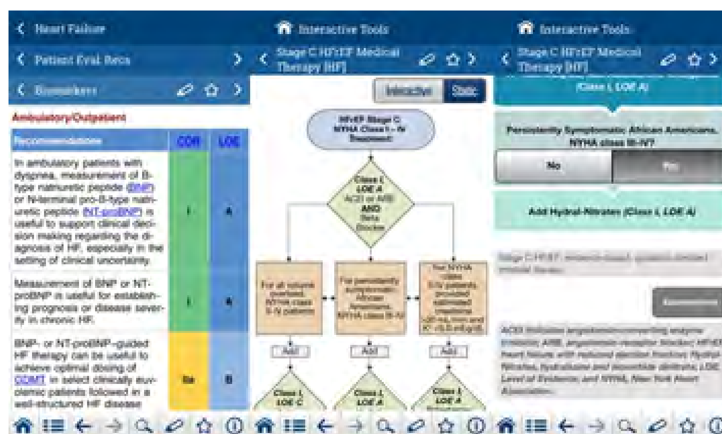
What Each Registry Collects

A summary of the data collected by the National Cardiovascular Data Registry®, including patient demographics, provider and facility characteristics, history and risk factors appropriate use criteria and compliance with clinical guideline recommendations. To view, go to http://bit.ly/1DfBY4g.

Clinician Resources

ACC's Guideline Clinical Mobile Application

In addition to clinical guideline content, the application includes interactive tools for clinicians caring for patients with cardiovascular disease, such as risk scores, dosing calculators and algorithms. The application also includes features such as customizable bookmarks, note-taking and email compatible PDFs. To download, go to http://apple.co/1yAgtiF.

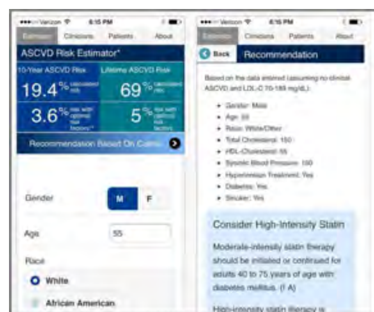


SCAI PCI Risk Calculator Application

SCAI teamed up with the Blue Cross Blue Shield of Michigan Cardiovascular Consortium Registry to create the SCAI PCI Risk Calculator that allows clinical users to use one common tool to make a pre-procedure assessment of post-PCI risks including mortality, acute kidney injury and transfusion. To download, go to http://bit.ly/2aOJ8Zf or http://apple.co/2ayeFRi.

SCAI PCI Appropriateness Calculator

Online calculator offered by SCAI that allows determination of the appropriate use score for individual PCI procedures based on individual patient clinical characteristics. To access, go to http://bit.ly/2aspQWS or http://bit.ly/2alqKhS.



Atherosclerotic Cardiovascular Disease (ASCVD) Risk Estimator

A companion tool to the *2013 ACC/American Heart Association Guideline on the Assessment of Cardiovascular Risk*, the ASCVD risk calculator enables health care providers and patients to estimate 10-year and lifetime risks for ASCVD. To access, go to http://bit.ly/2aHgK9e.

The NCDR CathPCI Registry® Physician Dashboard

Guide for Physicians

This guide provides complete information about accessing and using the dashboard, including appropriate use criteria scores. To download, go to http://bit.ly/1ynVGyY.

PowerPoint Presentation

This presentation explains how the physician dashboard of the NCDR CathPCI Registry® can be used to ensure data is being accurately documented and abstracted, assess quality of care being provided and identify opportunities for improvement. To download, go to http://bit.ly/1FQWMmC.

Coronary Revascularization Pocket Card

Developed by the ACC, this pocket card answers key questions and lists key decision variables about appropriate revascularization, as well as identifies reasons for which revascularization is rarely appropriate. To download, go to http://bit.ly/1Mry79j.

CASE EXAMPLE:

Blue Cross Blue Shield of Michigan Cardiovascular Consortium PCI Quality Improvement Initiative (BMC2-PCI)

Established in 1997, BMC2-PCI is a collaborative effort to improve care and outcomes for patients with coronary disease who undergo angioplasty. According to the 2015 Fact Sheet, participants include 33 Michigan hospitals and 484 physicians. Approximately 342,420 cases have been entered into the NCDR® since 1997. To learn more, go to https://bmc2.org/pci.

Guidelines and Appropriate Use Criteria

2012 Appropriate Use Criteria for Coronary Revascularization Focused Update

The ACC, in collaboration with SCAI, Society of Thoracic Surgeons, American Association for Thoracic Surgery, American Heart Association, American Society of Nuclear Cardiology, Heart Failure Society of America and the Society of Cardiovascular Computed Tomography published this focused update of the 2009 document to include new literature published since the original document and gaps noted during implementation. To download, go to http://bit.ly/166KuKs.

2011 ACC/American Heart Association/SCAI Guideline for Percutaneous Coronary Intervention: Executive Summary

Since 1980, the ACC and the American Heart Association have jointly produced guidelines in the area of cardiovascular disease. This guideline provides recommendations for CAD revascularization, pre-procedural, procedural, post-procedural and quality and performance considerations. To download, go to http://bit.ly/1tGwd17.

Clinical Articles

Variation in Patients' Perceptions of Elective Percutaneous Coronary Intervention in Stable Coronary Artery Disease: Cross Sectional Study

Kureshi F., Jones P.G., Buchanan D.M., Abdallah M.S., & Spertus J.A. (2014). Variation in patients' perceptions of elective percutaneous coronary intervention in stable coronary artery disease: cross sectional study. *BMJ*, 349:g5309. To download, go to http://bmj.co/1OOKwaA.

Initial Coronary Stent Implantation with Medical Therapy vs Medical Therapy Alone for Stable Coronary Artery Disease: Meta-Analysis of Randomized Controlled Trials

Stergiopoulos K, Brown D.L. (2012). Initial coronary stent implantation with medical therapy vs medical therapy alone for stable coronary artery disease: meta-analysis of randomized controlled trials. *Arch Intern Med*, 172(4):312-319. To download, go to http://bit.ly/1In2op4.

Patterns and Intensity of Medical Therapy In Patients Undergoing Percutaneous Coronary Intervention

Borden W.B., Redberg R.F., Mushlin A.I., Dai D, Kaltenbach L.A., & Spertus J.A. (2011). Patterns and intensity of medical therapy in patients undergoing percutaneous coronary intervention. *JAMA*, 305(18):1882-1889. To download, go to http://bit.ly/1ESpkNX.

Appropriateness of Percutaneous Coronary Intervention

Chan P.S., Patel M.R., Klein L.W., et al. (2011). Appropriateness of percutaneous coronary intervention. *JAMA*, 306(1):53-61. To download, go to http://bit.ly/1y6YfVX.

Meta-Analysis: Effects of Percutaneous Coronary Intervention versus Medical Therapy on Angina Relief

Wijeysundera, H. C., Nallamothu, B. K., Krumholz, H. M., Tu, J. V., & Ko, D. T. (2010). Meta-analysis: effects of percutaneous coronary intervention versus medical therapy on angina relief. *Annals of Internal Medicine*, 152(6), 370-379. To download, go to http://1.usa.gov/1GUnmyt.

A Meta-Analysis of 17 Randomized Trials of a Percutaneous Coronary Intervention-Based Strategy in Patients with Stable Coronary Artery Disease

Schömig A., Mehilli J., de Waha A., Seyfarth M., Pache J., & Kastrati A. (2008). A meta-analysis of 17 randomized trials of a percutaneous coronary intervention-based strategy in patients with stable coronary artery disease. *J Am Coll Cardiol.* 52(11):894-904. To download, go to http://bit.ly/1JbWGXn.

Effect of PCI on Quality of Life in Patients with Stable Coronary Disease

Weintraub, W. S., Spertus, J. A., Kolm, P., Maron, D. J., Zhang, Z., Jurkovitz, C., & Boden, W. E. (2008). Effect of PCI on quality of life in patients with stable coronary disease. *New England Journal of Medicine*, 359(7), 677-687. To download, go to http://bit.ly/1DQwcdZ.

Optimal Medical Therapy with or without PCI for Stable Coronary Disease

Boden, W. E., O'Rourke, R. A., Teo, K. K., Hartigan, P. M., Maron, D. J., Kostuk, W. J., & Weintraub, W. S. (2007). Optimal medical therapy with or without PCI for stable coronary disease. *New England Journal of Medicine*, 356(15), 1503-1516. To download, go to http://bit.ly/1HgoJGj.

Percutaneous Coronary Intervention versus Optimal Medical Therapy for Prevention of Spontaneous Myocardial Infarction in Subjects with Stable Ischemic Heart Disease

Bangalore, S., Pursnani, S., Kumar, S., & Bagos, P.G. (2013). Percutaneous coronary intervention versus optimal medical therapy for prevention of spontaneous myocardial infarction in subjects with stable ischemic heart disease / clinical perspective. *Circulation*, 127(7). 769-781. To download, to go http://bit.ly/1JLqZop.

Coronary Artery Bypass Graft Surgery versus Percutaneous Coronary Intervention with First-Generation Drug-Eluting Stents: A Meta-Analysis of Randomized Controlled Trials

Al-Ali, J., Franck, C., Filion, K.B., & Eisenberg, M.J. (2014). Coronary artery bypass graft surgery versus percutaneous coronary intervention with first-generation drug-eluting stents: a meta-analysis of randomized controlled trials. *JACC Cardiovasc Interv*. 7(5), 497-506. To download, go to http://1.usa.gov/1KO9XpH.

Causes of Short-Term Readmission after Percutaneous Coronary Intervention

Wasfy, J.H., Strom, J.B., O'Brien, C., Zai, A.H., Luttrell, J., Kennedy, K.F., Spertus, J.A., Zelevinsky, K., Normand, S.T., Mauri, L., & Yeh, R.W. (2014). Causes of short-term readmission after percutaneous coronary intervention. *Circ Cardiovasc Interv*. 7(1), 97-103. To download, to go http://bit.ly/1H5KJA4.

Patient Resources

PCI Choice

Materials from Mayo Clinic that visually illustrate the probabilities of risk versus benefit from PCI for stable ischemic heart disease in order to help patients make decisions that best fit their values and preferences. To view, go to http://mayocl.in/1aE3kdb.

What Can Angioplasty Do For You?

This *Harvard Health Publications* article discusses the benefits and risks of angioplasty for stable angina and the outcomes of the Clinical Outcomes Utilizing Revascularization and Aggressive Drug Evaluation (COURAGE) trial. To view, go to http://bit.ly/1Ds34bH.

SecondsCount.org

This website, hosted by SCAI, aims to better prepare patients and their families to navigate the medical system and actively participate in care. Resources include explanations about what Coronary Artery Disease (CAD) is, common tests and treatments involved as well as worksheets to assist in understanding medication and questions to ask physicians. To view, go to http://bit.ly/1Hq3v87.

Five Things Physicians and Patients Should Question

This Choosing Wisely list, identifying practices commonly used within critical care whose necessity should be questioned and discussed, was prepared as an initiative of the Society of Cardiovascular Angiography and Interventions. To download, go to http://bit.ly/2b8YMxH.

Appropriate Use of Medical Resources

Aligning Treatment with Patient Priorities in the Context of Progressive Disease for Use of the ICU

Developed with resources from:

National Hospice and Palliative Care Organization

Aligning Treatment with Patient Priorities in the Context of Progressive Disease for Use of the ICU

To access the toolkit, visit www.aha.org/appropriateuse.
Developed with resources from:
Center to Advance Palliative Care (CAPC)
Coalition to Transform Advanced Care (C-TAC)
Education in Palliative and End-of-life Care (EPEC®)
National Hospice and Palliative Care Organization (NHPCO)
Society of Critical Care Medicine (SCCM)

The health care system should encourage early intervention and discussion about priorities for medical care in the context of progressive disease and robust communication between patients and their providers to understand the patient's goals. These discussions should address the likelihood of acceptable (to the patient) recovery, the risk of long-term impairment or death, the options for palliative care co-management at the same time as disease-directed treatment and the benefits of hospice care in the framework of the patient's priorities.

User Guide

The toolkit is composed of three sections:

Hospital and Health System Resources – This section includes assessment guides, PowerPoint presentations, key statistics and findings, position statements and resources supporting the appropriate use of the ICU for imminently terminal illness.

Clinician Resources – This section includes fact sheets, a palliative care screen, tip sheets, communication guides, articles, a webcast and recommendations regarding end-of-life care in the ICU.

Patient Resources – In addition to two overview pieces, this section includes resources regarding palliative care, advance care directives, and ICU/treatment-specific concerns for patients, their families and caregivers.

Hospital and Health System Resources

Implementing Decision Making Resources for Serious Illness
Developed on behalf of C-TAC, this slide presentation shares an overview of the issues surrounding advanced illness care in the United States including demographic and utilization trends, cultural issues and models that work. To download, go to bit.ly/1h9xDvW.

Consumer Perceptions and Needs Regarding Advanced Illness Care: Are We Listening?
This C-TAC consumer perceptions paper explores the communications gap between patients and family members and the health care providers they rely on when they are sickest and most vulnerable. The paper addresses confusion on advanced illness terminology, cost concerns, and how to improve communications regarding end-of-life care. To download, go to bit.ly/1T17Sgh.

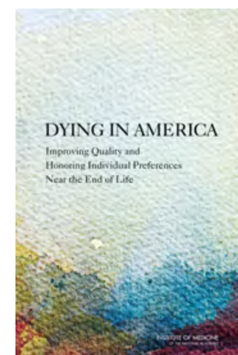
Continuum of Care Assessment
Developed by NHPCO, this assessment guides an organization through determining strengths and gaps of services in providing a seamless continuum of care for patients with life-limiting illness. Steps in NHPCO's process include internal, competitor, community service, and organizational strength assessments, as well as prioritizing and mapping gaps and strengths, compiling community data and trends, determining return on investment, and implementation. To download, go to bit.ly/1FZNWmY.

Tracking Improvement in the Care of Chronically Ill Patients: A Dartmouth Atlas Brief on Medicare Beneficiaries Near the End-of-life
"For over a decade, *Dartmouth Atlas* analyses have shown that care for a relatively homogenous population (chronically ill patients near the end-of-life) varies significantly across regions and hospitals. This report shows rapid improvement in many places, although patients in some hospitals continue to receive more aggressive and less palliative care than others." To download, go to bit.ly/1FBTDnN.

Position Statement on Access to Palliative Care in Critical Care Settings
NHPCO issued this call to action "for professionals in critical care settings, palliative providers and hospital administrators to ensure the provision of palliative care.…Access to palliative care for all patients in the critical care setting requires collaboration among health care professionals, changes in education processes, utilization of evidence-based practice, application of ethical principles and improvements in health care systems. Through this comprehensive, collaborative approach an environment that ensures the right of all patients in critical care settings and their family members to palliative care is achieved." To download, go to bit.ly/1ODWu5S.

NHPCO Position Statement and Commentary on the Use of Palliative Sedation in Imminently Dying Terminally Ill Patients
Published in *Journal of Pain and Symptom Management*, this position statement recommends implementation of a written institutional policy addressing palliative sedation. The article provides definitions, addresses indications and recommended processes, continuation of concurrent life-sustaining therapies, artificial nutrition and hydration, education and clinical support, discusses frequency of use, and case and utilization review. To download, go to bit.ly/1QwIueg.

Dying in America: Improving Quality and Honoring Individual Preferences near the End-of-Life
This consensus report from the Institute of Medicine finds that "improving the quality and availability of medical and social services for patients and their families could not only enhance quality of life through the end-of-life, but may also contribute to a more sustainable care system." To download, go to bit.ly/1KR0f9x.



Clinical Resources

IPAL-ICU Improving Palliative Care in the ICU
In an effort to integrate palliative care and intensive care across disciplines, CAPC, with support from the National Institutes of Health created IPAL-ICU, a central venue for sharing expertise, evidence and tools, along with links to colleagues, organizations and informational materials. Resources include CME/CEU courses, webinars and office hours, discussion forums, videos and podcasts and more. To access, go to bit.ly/1H6pFIY.

Evidence-Based Palliative Care in the Intensive Care Unit: A Systematic Review of Interventions
Published in *Journal of Palliative Medicine*, this systematic review concludes "existing evidence suggests proactive palliative care in the ICU, using either consultative or integrative palliative care interventions, decrease hospital and ICU [length of stay], do not affect satisfaction, and either decrease or do not affect mortality." To download, go to bit.ly/1PJYcTU.

Critical Care Delivery in the Intensive Care Unit: Defining Clinical Roles and the Best Practice Model
Appearing in *Critical Care Medicine*, this article examines demographics and patterns of care in ICUs citing a SCCM study, Pediatric ICU Survey Data, and the work of the Committee on Manpower for the Pulmonary and Critical Care Societies. Also addressed is the need for multidisciplinary critical care, including intensivist, nursing, pharmacy, and respiratory therapy components. An assessment of the literature is provided, including practitioner-specific studies. To download, go to bit.ly/1cQFxYy.

Recommendations for End-Of-Life Care in the Intensive Care Unit: A Consensus Statement by the American College of Critical Care Medicine
In this article, recommendations to improve care in the ICU at the end-of-life include patient and family-centered decision making, ethical principles and practical aspects relating to the withdrawal of life-sustaining treatment, and symptom management. To download, go to bit.ly/1JOFQjN.

Fast Facts

Published in the *Journal of Palliative Medicine*, Fast Facts are "teaching tools that can be used for bedside rounds, as well as self-study material for health care trainees and clinicians." Just four of the nearly 300 Fast Facts:

- Palliative Care and ICU Care: Pre-Admission Assessment
- Palliative Care and ICU Care: Daily ICU Care Plan Checklist
- The Family Meeting: End-of-life Goal Setting and Future Planning
- Palliative Care Consultation in the ICU

Estimates of the Need for Palliative Care Consultation across United States Intensive Care Units Using a Trigger-based Model

This *American Journal of Respiratory and Critical Care Medicine* article discusses the impact of a trigger tool in the ICU to improve the timing and appropriate referral to palliative care consultation. To download, go to bit.ly/1FyqDOE.

Five Things Physicians and Patients Should Question

This Choosing Wisely list, identifying practices commonly used within critical care whose necessity should be questioned and discussed, was prepared as an initiative of the Critical Care Societies Collaborative, which includes the American Association of Critical-Care Nurses, the American College of Chest Physicians, the American Thoracic Society and the Society of Critical Care Medicine. To download, go to bit.ly/1ORjijg.

Evaluation of Screening Criteria for Palliative Care Consultation in the MICU: A Multihospital Analysis

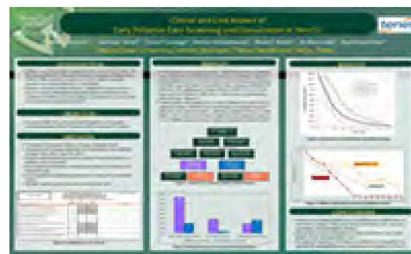
Using a palliative care screening tool, "medical intensive care unit (MICU) nurses at four hospitals screened patients upon admission during a 16-week period." To download, go to bit.ly/1KL2Ctx.

Palliative Care Screen Used in Study

Seven-item screen used for the study, implemented across the four MICUs. To download, go to bit.ly/1IObizY.

Clinical and Cost Outcomes for Triggered PC Consults in ICU: A Multi-Hospital Study

This poster, presented at the 2014 CAPC National Seminar, examines the validity and impact of the Palliative Care Screen found above. To download, go to bit.ly/1S298y8.



Clinical and Cost Impact of Early Palliative Care Screening and Consultation in the ICU

This abstract, from the 8th World Research Congress of the European Association for Palliative Care, shows that to make a difference in the use of resources, palliative care consults need to be started within the first four days of hospitalization. To download, go to bit.ly/1KcFIQF.

Education in Palliative and End-of-life Care (EPEC®)

The EPEC® curriculum combines didactic sessions, video presentations, interactive discussions, and practice exercises teaching fundamental palliative care skills in communication, ethical decision making, psychosocial considerations, and symptom management. Medical specialty curricula include oncology, emergency medicine, long-term care, for Veterans and (currently in production), pediatrics. To access, go to bit.ly/1NrYWOh.

CASE EXAMPLES

BAYLOR HEALTH CARE SYSTEM SUPPORTIVE AND PALLIATIVE CARE (SPC) SERVICES

AHA Circle of Life 2014 Award Winner

Baylor's SPC program grew out of a clinical ethics program providing about 120 collaborative clinical ethics consultations yearly, most at the very end of life. The ethics consultation team could help negotiate a care plan, but could not treat pain or other suffering. Recognizing the need to reach seriously ill patients earlier, the Palliative Care program was launched in 2004.

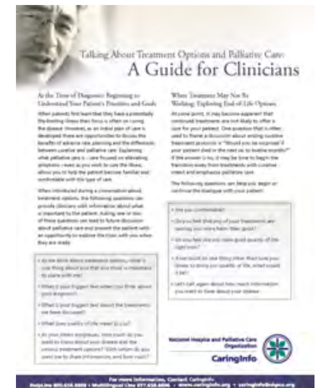
Since the program began many innovations have been implemented including a comfort feeding program and utilization of volunteer doulas to accompany and comfort the seriously ill and dying. SPC extends to Baylor House Call program, providing comfort care and symptom management resources to the nearly 1,200 homebound elders the program serves.

Synergism with the critical care and emergency department led to development of "trigger tools" to systematically identify their SPC-appropriate patients. The results: more palliative care consults on admission from the ED, more direct hospice admits from the ED, and shorter ICU lengths of stay.

A FORBIDDEN CONVERSATION

Published in SCCM's *Critical Connections*, this ethics case study examines the balance between patient and physician autonomy. The case, in which discussion about death, dying and end-of-life care was forbidden by the patient's and family's religion, sheds lights on standards of decision making, autonomy and futility while honoring the values of all involved – the patient, family and clinicians.

Communication Resources


Talking About Treatment Options and Palliative Care:
A Guide for Clinicians

Talking About Treatment Options and Palliative Care: A Guide for Clinicians
NHPCO's guide provides clinicians with questions they can ask their patients at the time of diagnosis, in order to better understand the patient's priorities and goals, as well as explore end-of-life options. The guide also provides new approaches to communicating options as well as what a patient may be thinking when asking questions such as "what are my chances?" and "what would you do if you were me?" To download, go to bit.ly/1fLT7yh.

Advice for Physicians Caring for Dying Patients
Developed by NHPCO, this advice helps physicians discuss end-of-life treatment with their patients. Recommendations include placing advance directives, living wills and power-of-attorney documents in the patient's chart, as well as utilizing hospice and palliative care team members, chaplains, and social workers. To download, go to bit.ly/1QwJqzI.

Improving End-of-Life Care through Better Clinician-Patient Communications
In this inaugural webcast of SCCM's Project Dispatch, presenter J. Randall Curtis, MD, MPH, discusses his PCORI-funded study focusing on ensuring patients receive the care they desire through improved patient-clinician communication. To view, go to bit.ly/1H8PLjR.

Articles

The Impact of Advance Care Planning on End-of-Life Care in Elderly Patients: Randomised Controlled Trial
The authors of this *BMJ* article show that for a university hospital in Australia, "advance care planning improves end of life care and patient and family satisfaction and reduces stress, anxiety, and depression in surviving relatives." To download, go to bit.ly/1hSeyze.

The Changing Role of Palliative Care in the ICU
This *Critical Care Medicine Journal* article provides a definitive review on the topic of palliative care for ICU patients. With more than 150 references, it concisely summarizes the existing research on palliative care in the ICU and provides resources for clinicians and policy makers. To download, go to bit.ly/1Xd6Csx.

Integrating Palliative Care in the ICU: The Nurse in a Leading Role
Published in *Journal of Hospice & Palliative Nursing*, this article discusses the key role nurses play in integrating palliative care as a component of intensive care for all critically ill patients. The article reviews the contributions of nurses to implementation of ICU safety initiatives, and how this model can be applied to ICU palliative care integration. To download, go to bit.ly/1DSYCAS.

Intervention to Improve Care at Life's End in Inpatient Settings: The BEACON Trial
In this *Journal of General Internal Medicine* article, the authors discuss that "the keys to excellent end-of-life care are recognizing the imminently dying patient, communicating the prognosis, identifying goals of care, and anticipating and palliating symptoms." To download, go to bit.ly/1MbcRFT.

Ethical Concerns in the Management of Critically Ill Patients
This chapter from SCCM's *Comprehensive Critical Care: Adult* textbook introduces principles of ethics, how to decide what is ethical, and then addresses treatment of patients in the ICU which includes consent for treatment, decision making, and withdrawal or withholding treatment. To access, go to bit.ly/1dyaxgs.

Change in End-of-Life Care for Medicare Beneficiaries: Site of Death, Place of Care, and Health Care Transitions in 2000, 2005, and 2009
The authors in this *JAMA* article conclude that "between 2000 and 2009, the ICU utilization rate, overall transition rate, and number of late transitions in the last 3 days of life increased." To download, go to bit.ly/1AOO8GO.

Patient Resources

The Problem of Hubris

Dr. Atul Gawande, author of *Being Mortal: Medicine and What Matters in the End* addresses the limitations of society and health care in attempting to solve the "problem" of aging and dying in this BBC Reith lecture series. In *Being Mortal* as well as in this lecture series, Dr. Gawande examines how "medicine has triumphed in modern times, transforming the dangers of childbirth, injury, and disease from harrowing to manageable. But when it comes to the inescapable realities of aging and death, what medicine can do often runs counter to what it should." To listen, go to http://bbc.in/2b8ZOKc.

The Fallacy of 'Giving Up'

This article, featured in *The Atlantic*, details "the importance of talking with a doctor about values and priorities in life—at any age." The author notes how Dr. Gawande's *Being Mortal* and another recently published book, *The Conversation* by Dr. Angelo Volandes, as well as *How We Die*, a book written twenty years ago by Dr. Sherwin Nuland are evidence end-of-life discussions have "grown extremely loud inside of the health-professional echo chamber, but is somehow still only faintly reverberating into broader culture." To download, go to http://theatln.tc/2b8Zxqh.

Palliative Care

What Should You Know About Palliative Care?

This handout from CAPC addresses what palliative care is, where it is received, who provides it, what to expect and how to get started. To download, go to bit.ly/1cC483e.

Palliative Care Glossary

Developed by CAPC, this resource explains commonly used words, phrases and acronyms to assist patients to better engage in their care. To download, go to bit.ly/1EZRG41.

Palliative and Hospice Care: Comfort during a Serious Illness or the Final Months of Life

This handout from NHPCO provides answers to frequently asked questions for patients to use when talking with health care providers. To download, go to bit.ly/1Kf3giJ.

Advance Directives

Put It in Writing

This AHA resource provides basic facts about advance directives and encourages patients to explore their preferences for care at the end-of-life. Documenting wishes, putting them in writing, empowers patients to make decisions on their terms. To download, go to bit.ly/1GoUj6R.

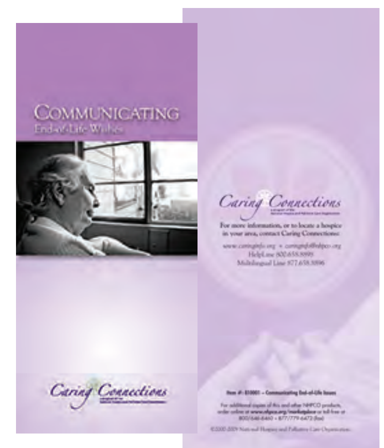
Conversation Starter Kit

Created by the Conversation Project and the Institute for Healthcare Improvement, this starter kit guides conversations for end-of-life care among families. "Too many people die in a manner they would not choose, so The Conversation Project offers people the tools, guidance and resources they need to begin talking with their loved ones, around the kitchen table, about their wishes and preferences." To download, go to bit.ly/1djBogd.

CaringInfo

NHPCO's website for patients provides information and support to plan ahead, when caring for a loved one living with an illness or grieving a loss. To access, go to bit.ly/1Ld8lJz. One section provides resources for advance care planning, including:

- Communicating Your End-of-Life Wishes
- What to Do If Family Members Disagree
- How to Talk with Your Health Care Providers



ICU and Treatment

MyICUCare.org

The SCCM website for patients and families offers resources such as:

- Making Decisions about ICU Care
- Participating in Care: What Questions Should I Ask?
- Taking Care of Yourself While a Loved One Is in the ICU
- What Are My Choices Regarding Life Support?

Artificial Nutrition and Hydration at the End-of-life

In order to empower patients and loved ones to make an informed decision, this NHPCO document provides answers to questions such as when artificial nutrition and hydration are used, why, and what it means to refuse or withdraw such interventions. To download, go to bit.ly/1SPqnRR.

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