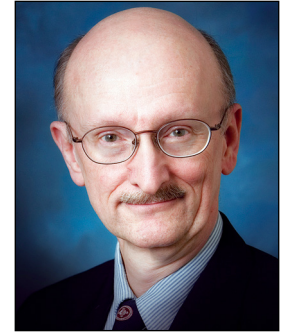


Recommendations from the Critical Care Societies Collaborative

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The American Board of Internal Medicine (ABIM) last year ended its Choosing Wisely initiative, launched in 2012 as a campaign “to spark conversations between clinicians and patients about what tests, treatments, and procedures are needed – and which ones are not.” During the campaign, more than 80 specialty societies shared 700-plus recommendations of tests and treatments they said were overused or unnecessary; this journal shared many of those recommendations.

Although ABIM no longer maintains and makes the recommendations available via their website, I will work with *JLGH* to continue to offer information to help readers in their daily practice of medicine. We will review past recommendations and offer new ones where available.

This issue marks my 44th article on Choosing Wisely, with “Five or More Things That Physicians and Patients Should Question” from the Critical Care Societies Collaborative (CCSC). The first set of recommendations below was published in 2015, and in 2021 CCSC added five more. Additional information on CCSC and these items is available online at sccm.org/About-SCCM/Critical-Care-Societies-Collaborative.

RECOMMENDATIONS FROM CCSC (2015)

1. Diagnostic tests should not be ordered at regular intervals (such as every day), but rather in response to specific clinic questions. Many diagnostic studies (including chest radiographs, arterial blood gases, blood chemistries and counts, and electrocardiograms) are ordered at regular intervals (e.g., daily). This has been found to increase health care costs and does not benefit patients – it may in fact harm them. It can even contribute to anemia.

2. Transfusion of red blood cells should not be ordered in hemodynamically stable, non-bleeding ICU patients with a hemoglobin >7 g/dL. For all patient populations in which it has been studied, transfusing red blood cells at a threshold of 7 g/dL is associated with similar or improved survival, fewer

complications, and reduced costs compared to higher transfusion triggers.

3. Delay in providing nutrition should not be done during the first 24 to 36 hours of a critical illness. Parenteral nutrition should not be avoided regardless of nutrition risk.

4. Deep sedation of mechanically ventilated patients should not be done without a specific indication and without daily attempts to lighten sedation. Several protocol-based approaches can safely limit deep sedation, including the explicit titration of sedation to the highest effective level, the preferential administration of analgesic medications prior to initiating anxiolytics, and a performance of daily interruptions of sedation in appropriately selected patients receiving continuous sedation infusions.

5. Life support should not be continued for patients at high risk for death or severely impaired functional recovery without offering patients and their families the alternative of care focused entirely on comfort. Routinely engaging high-risk patients and their surrogate decision-makers in discussions about the option of foregoing life-sustaining therapies may promote patients’ and families’ values, improve the quality of dying, and reduce family distress and bereavement.

RECOMMENDATIONS FROM CCSC (2021)

1. Lines, tubes, or drains should not be left in ICU patients that have not been evaluated at least once daily and judged to provide continued patient benefit. Most hospital-acquired infections and unintended safety events are due to line and drain placements. Reducing time of exposure by assessing continuous need and opportunity for discontinuation of invasive access is in the best interest of patients.

2. Mechanical ventilator weaning should not be delayed unless there is clinical evidence of need. Most ICUs assess mechanical ventilation needs daily; however, opportunities for discontinuance can present throughout the day. Current guidelines recommend

removal of mechanical ventilation when it is safe and can be accomplished, as this reduces pain and patient anxiety, minimizes exposure to infection, and promotes liberation as a standard practice.

3. Discontinuation of antibiotics in culture-negative and asymptomatic patients with sterile cultures should not be delayed beyond 24 hours. The Society of Critical Care Medicine fully supports the Centers for Disease Control and Prevention's (CDC's) call for hospitals to implement antibiotic stewardship programs to avoid harm to patients from the misuse of antibiotics.

4. Mobilization of patients should not be delayed beyond 48 hours from ICU admission for patients who passed mobilization safety screening. The evidence of mobilizing patients who passed safety screens is growing.

5. Care should be provided if it aligns with the documented patient's and family's goals, values, and preferences for health care. Five million persons are admitted annually to intensive care units in the United States, and 20% to 40% require mechanical ventilation or other life support. One in five adults admitted to the ICU dies during that hospitalization, and 25% of total health care costs are expended on the 6% of people who die each year.

Accordingly, consideration for documented care wishes is crucial. Establishing goals of care is a crucial component in the decision-making process, aligning care with desired outcomes wherever possible. This recommendation recognizes the importance of empowering and engaging the family in the care plan.

Top Tips

OUTPATIENT TREATMENT OF CONFIRMED COVID-19

Evidence for the use of outpatient treatments in adults with confirmed COVID-19 continues to evolve with new data. The updated version of the American College of Physicians (ACP) living, rapid practice points¹ focuses on 22 outpatient treatments for COVID-19, specifically addressing the dominant SARS-CoV-2 Omicron variant.

This version was developed by the ACP Center for Evidence Reviews at Cochrane Austria at the University for Continuing Education Krems (Danube University and Krems).

- Practice Point 1: Consider molnupiravir to treat symptomatic patients with confirmed mild to moderate COVID-19 in the outpatient setting who are within five days of the onset of symptoms and at a high risk for progressing to severe disease.
- Practice Point 2: Consider nirmatrelvir-ritonavir combination therapy to treat symptomatic patients with confirmed mild to moderate COVID-19 in the outpatient setting who are within five days of the onset of symptoms and at a high risk for progressing to severe disease.
- Practice Point 3: Do not use ivermectin to treat patients with confirmed mild to moderate COVID-19 in the outpatient setting.
- Practice Point 4: Do not use sotrovimab to treat patients with confirmed mild to moderate COVID-19 in the outpatient setting.

Clinical Considerations

- The living, rapid review did not evaluate comparative effectiveness, meaning evidence does not show if one treatment is more effective than another treatment.
- Risk stratification is an important step in the initial evaluation to decide the best approach to treat COVID-19 in the outpatient setting. The current definition of risk factors for progression to severe COVID-19 disease can be assessed from the CDC's website at the QR code above ([cdc.gov/coronavirus/2019-ncov/your-health/risks-getting-very-sick.html](https://www.cdc.gov/coronavirus/2019-ncov/your-health/risks-getting-very-sick.html)).
- Outpatient management of mild to moderate COVID-19 is appropriate for most patients. The decision to initiate treatment for COVID-19 in the outpatient setting should be personalized and based on clinical judgment using an informed decision-making approach about potential treatment benefits, harms, patient characteristics (such as risk factors, comorbid conditions, and disease severity), patient preferences, and social determinants of health.
- Before initiating outpatient treatment for COVID-19, review treatment warnings and precautions as well as all medications and potential drug interactions.



- Viral rebound of SARS-CoV-2 and the recurrence of COVID-19 symptoms have been reported in some patients completing treatment with nirmatrelvir-ritonavir combination therapy.

ANTIBIOTIC REGIMENS FOR COMMUNITY-ACQUIRED PNEUMONIA

Adults with non-severe community-acquired pneumonia (CAP) responded nearly equally to three first-line and alternative antibiotic regimens, based on data from more than 23,000 individuals.

In this study published in *Chest*,² the researchers reviewed data from 23,512 consecutive patients admitted to 19 hospitals in Canada for CAP between 2015 and 2021. Patients were treated with one of four initial antibiotic regimens: beta-lactam plus macrolide (BL+M), beta-lactam alone (BL), respiratory fluoroquinolone (FQ), or beta-lactam plus doxycycline (BL+D). Of these, BL+M is generally considered the first-line regimen, the researchers noted.

Overall, the results support dropping BL as a first-line regimen in current guidelines from the American Thoracic Society and the Infectious Diseases Society of America. They further support the recommendation of BL+M, FQ, and BL+D as similarly effective options as listed in other guidelines, applied according to other patient characteristics. For example, “Doxycycline may be preferred over a macrolide in many cases such as macrolide allergy, prolonged QT, or high (*Clostridioides*) *difficile* risk,” the researchers said.

The results were strengthened by large sample size and use of a comprehensive database that allowed for adjustment for many variables, as well as the availability of complete follow-up data for the time spent in the hospital. Based on the study, clinicians may choose a respiratory fluoroquinolone, a BL+M, or a BL+D for equal effective antibiotic treatment of CAP, based on the best fit for each individual patient.

NEW GUIDELINES ON DIABETES-RELATED LABORATORY TESTING

New guidelines from the American Association of Clinical Chemistry (AACC) and the American Diabetes Association (ADA) address laboratory measures in the diagnosis and management of diabetes. The corresponding article in *Diabetes Care*³ reminds clinicians to consider test limitations.

One example is a recommendation to collect blood samples for glucose analysis in tubes contain-

Discover the Vibrant World of Events Hosted by the Lancaster Medical Heritage Museum

From webinars featuring experts in history and medicine, to kids' events like the annual Teddy Bear Clinic in collaboration with LG Health pediatric nurses, the Lancaster Medical Heritage Museum offers a range of experiences for the public.

This year, the museum is unveiling a lineup of new events, including Singles Night, the Yoga at the Museum summer series with Black Cat Yoga Studio of Lititz, and a candlelight Halloween tour, where participants will delve into captivating stories from the annals of medical history.

The museum is located at 410 N. Lime Street in Lancaster and open Wednesday-Saturday, 11:00 a.m. to 3:00 p.m. Admission is free to LG Health employees with a badge and children under 3; \$8:00 for all others.

Follow the museum on social media or visit lancastermedicalheritagemuseum.org for the most current information.

Scan to learn more and
register for Lancaster
Medical Heritage
Museum special events.



ing a rapidly effective inhibitor of glycolysis such as a granulated citrate buffer. If unavailable, sample tubes should be placed immediately into an ice water slurry and centrifuged within 15 to 30 minutes to remove the cells.

Another is the recommendation of a confirmatory test when diagnosing diabetes, regardless of the initial test used (A1C, fasting glucose, or oral glucose tolerance test). There is a large intra-individual variation of fasting glucose; the two-hour glucose tolerance test is similarly fraught. This means that if you do the test

one week and then repeat it the next day or a week later, the results will be quite different. This is a reason why confirmation of an abnormal test is important.

Other “strong” recommendations based on “high” evidence levels include:

- Fasting glucose should be measured using venous plasma; to establish the diagnosis of diabetes, a diagnostic cutoff of >7.0 mmol/L (≥126 mg/dL) is appropriate.
- Frequent blood glucose monitoring is recommended for all people with diabetes treated with intensive insulin regimens (multiple daily injections or insulin pump therapy) and who are not using continuous glucose monitoring.
- Routine use of blood glucose monitoring is not recommended for people with type 2 diabetes who are treated with diet and/or oral agents alone.
- Treatment goals should be based on ADA recommendations, i.e., A1C <7% (<53mmol/mol) if it can be achieved without significant hypoglycemia or other adverse treatment effects, with higher targets for special populations.
- Annual testing for albuminuria should begin in pubertal or post-pubertal individuals five years after diagnosis of type 1 diabetes and at time of diagnosis of type 2 diabetes, regardless of treatment.
- Urine albumin should be measured annually in adults with diabetes using morning spot urine albumin-to-creatinine ratio.

Other guidance in the document pertains to use of ketone testing, genetic markers, autoimmune markers, and C-peptides.

U.S. SHORTAGE OF PRIMARY CARE PHYSICIANS

In a KFF Health News editorial,⁴ Senior Contributing Editor Elisabeth Rosenthal addresses the shortage of primary care physicians in the United States. She outlines causes of the shortage, as well as proposed solutions.

Causes

- The percentage of U.S. doctors in adult primary care has been declining for years and is now about 25%.
- The number of Americans who don’t have usual access to primary care has nearly doubled since 2014 to more than 100 million.
- Lack of usual access to primary care is one reason our coronavirus vaccination rates were low; many

of us no longer regularly see a family doctor we trust.

- Primary care practices tend to lack the support staff of profitable orthopedic and gastroenterology clinics.
- The payment structure in the United States favors surgeries and procedures over primary care.

Proposed Solutions

- Hospitals and commercial groups could invest some of the money they earn for surgeries to support primary care staffing, thereby allowing for an increase in the time primary care physicians can spend with patients.
- Reimbursement for primary care visits could be increased – perhaps by enacting a national primary care fee schedule.
- The medical school debt of doctors who choose primary care as a profession could be forgiven.

Rosenthal offers these solutions based on studies showing that a strong foundation of primary care yields better health outcomes overall, greater equity in health care access, and lower per capita health cost.

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