



PERFORMANCE EXCELLENCE 2020

Adult evidence-based recommendations and resources

As part of PE 2020, MLH is exploring opportunities to minimize the overutilization of diagnostics across the System. According to The Academy of Medicine, up to 30% of health care delivered in the U.S. is unnecessary and may cause harm. Patterned after the Choosing Wisely® campaign (choosingwisely.org), this document provides pragmatic advice to assist clinicians in making recommended decisions based on leading guidelines in areas prone to overuse or misuse of lab tests.

GENERAL LAB

FACTOR	RECOMMENDED	NOT RECOMMENDED
Routine Testing	<ul style="list-style-type: none"> Limit frequency of blood testing and duration or both Avoid duplicate testing <ul style="list-style-type: none"> If a test is normal in the ED or on admission, and a repeat value won't change management, <u>don't</u> order a repeat BMP for initial screening <ul style="list-style-type: none"> Order individual electrolytes as needed to trend (K+, Na+, etc.) CBC for initial screening 	<ul style="list-style-type: none"> Repetitive ordering of common tests; future orders, serial testing (x3 or x4 daily) CBC with Differential (CBCD) and Comprehensive Metabolic (CMET) for routine IP testing
Electrolytes	<ul style="list-style-type: none"> Check Mg+ if indicated x 1 Repeat Mg+ if patient on CHF diuretic protocol or if symptoms of hypomagnesemia or evidence of cardiac abnormality, starvation, alcohol withdrawal, seizure, hypokalemia, unexplained hypocalcemia, or pregnant on tocolytics Test Ionized Calcium for the following indications: severe sepsis or severe pancreatitis, severe metabolic alkalosis (pH > 7.5) and acidosis (pH < 7.3), administration of drugs or chemo associated with hypocalcemia; cardiac dysfunction associated with new or worsening LVSD, prolonged QTc, and/or ventricular arrhythmias 	<ul style="list-style-type: none"> Repeat Mg+ if initial level is normal Serum magnesium concentration does not reflect the patient's magnesium status accurately as it does not correlate well with total magnesium body content Mg+ and Ionized Calcium testing in non-critically ill patients
Coagulation Tests	<ul style="list-style-type: none"> PT/INR or PTT for patients on warfarin or heparin PTT for patients on heparin or argatroban Check PT/INR prior to ordering FFP Protein C and S testing should be performed at least 10 days after thrombotic episode in the ambulatory setting 	<ul style="list-style-type: none"> Protein C and S testing for patients receiving warfarin or other oral anticoagulant therapy PT/PTT for patients <u>not</u> on warfarin or heparin; routine testing
Acute Pancreatitis	<ul style="list-style-type: none"> Lipase x 1 Consider repeat lipase testing when the patient has s/s of persisting pancreatic or peripancreatic inflammation, blockage of the pancreatic duct or development of pseudocyst 	<ul style="list-style-type: none"> Amylase Repeat Lipase once diagnosis has been made
Acute Inflammation	<ul style="list-style-type: none"> C-reactive protein <ul style="list-style-type: none"> More sensitive and specific reflection of acute phase of inflammation First 24 hour of a disease process, CRP will be elevated while the ESR may be normal 	<ul style="list-style-type: none"> Sedimentation rate (ESR) If source of the inflammation is removed, the CRP will return normal within a day, while the ESR will remain elevated for several days
Cardiac	<ul style="list-style-type: none"> Troponin I for AMI BNP for initial assessment of undifferentiated dyspnea 	<ul style="list-style-type: none"> Myoglobin or CK-MB BNP for serial monitoring of CHF BNP for dialysis or chronic kidney disease (CKD)
Viral respiratory panel (VRP)	<ul style="list-style-type: none"> During influenza season, order rapid influenza antigen test Order VRP if influenza antigen is negative and patient is critically ill 	<ul style="list-style-type: none"> VRP for patients who will not be admitted to hospital
C. diff Testing	<ul style="list-style-type: none"> C. diff testing after 3 loose stools within 24h <ul style="list-style-type: none"> Do not test for C. diff if patient only has 1 or 2 loose stools 	<ul style="list-style-type: none"> Testing on patients taking laxatives 48h prior Repeating testing to confirm cure if symptoms have resolved
O&P and Routine Stool Testing	<ul style="list-style-type: none"> No testing on patients who develop diarrhea >3 days in the hospital (most likely cause is C. diff) 	<ul style="list-style-type: none"> Routine stool culture and O&P on patients who develop diarrhea >3 days in the hospital
Urinalysis	<ul style="list-style-type: none"> Urinalysis with Hold for Culture (pending urinalysis results, place an order for ADD-ON test and specify urine culture within 24h) 	<ul style="list-style-type: none"> Urinalysis with Reflex to Culture

References:

Choosing Wisely® Campaign. ABIM Foundation. 2013. Retrieved from: <http://www.choosingwisely.org>
 Eaton KP. et al. "Evidence-Based Guidelines to Eliminate Repetitive Laboratory Testing." JAMA 2017: E1-E7.

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