

Table A: Top five list recommendations with sufficient reliability

Recommendation	Publishing Medical Society
CWI recommendations with S3 guideline equivalents associated with an “A” GoR (category “1A”)	
Don't prescribe bed rest for acute localized back pain without completing an evaluation.	American Academy of Physical Medicine and Rehabilitation
Don't order an imaging study for back pain without performing a thorough physical examination.	American Academy of Physical Medicine and Rehabilitation
Avoid lumbar spine imaging in the emergency department for adults with non-traumatic back pain unless the patient has severe or progressive neurologic deficits or is suspected of having a serious underlying condition (such as vertebral infection, cauda equine syndrome, or cancer with bony metastasis).	American College of Emergency Physicians
Don't do imaging for low back pain within the first six weeks, unless red flags are present.	American Academy of Family Physicians
Don't obtain imaging (plain radiographs, magnetic resonance imaging, computed tomography [CT], or other advanced imaging) of the spine in patients with non-specific acute low back pain and without red flags.	American Association of Neurological Surgeons and Congress of Neurological Surgeons
Don't obtain imaging studies in patients with non-specific low back pain.	American College of Physicians
Avoid imaging studies (MRI, CT or X-rays) for acute low back pain without specific indications.	American Society of Anesthesiologists – Pain Medicine
Don't recommend advanced imaging (e.g., MRI) of the spine within the first six weeks in patients with non-specific acute low back pain in the absence of red flags.	North American Spine Society
Avoid prescribing antibiotics in the emergency department for uncomplicated sinusitis.	American College of Emergency Physicians
Don't order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis.	American Academy of Allergy, Asthma & Immunology
Don't routinely prescribe antibiotics for acute mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement.	American Academy of Family Physicians
Antibiotics should not be used for apparent viral respiratory illnesses (sinusitis, pharyngitis, bronchitis).	American Academy of Pediatrics
Avoid prescribing antibiotics for upper respiratory infections.	Infectious Diseases Society of America
Don't perform sentinel lymph node biopsy or other diagnostic tests for the evaluation of early, thin melanoma because they do not improve survival.	American Academy of Dermatology
Don't screen for carotid artery stenosis (CAS) in asymptomatic adult patients.	American Academy of Family Physicians
Don't routinely screen for prostate cancer using a prostate-specific antigen (PSA) test or digital rectal exam.	American Academy of Family Physicians
Don't routinely perform PSA-based screening for prostate cancer.	American College of Preventive Medicine
Don't perform PSA testing for prostate cancer screening in men with no symptoms of the disease when they are expected to live less than 10 years.	American Society of Clinical Oncology
Don't use post-operative splinting of the wrist after carpal tunnel release for long-term relief.	American Academy of Orthopaedic Surgeons
Don't perform annual stress cardiac imaging or advanced non-invasive imaging as part of routine	American College of Cardiology

follow-up in asymptomatic patients.	
Avoid performing routine stress testing after percutaneous coronary intervention (PCI) without specific clinical indications.	Society for Cardiovascular Angiography and Interventions
Don't perform routine annual stress testing after coronary artery revascularization.	Society of Nuclear Medicine and Molecular Imaging
Don't perform stress cardiac imaging or advanced non-invasive imaging in the initial evaluation of patients without cardiac symptoms unless high-risk markers are present.	American College of Cardiology
Don't perform cardiac imaging for patients who are at low risk.	American Society of Nuclear Cardiology
Don't perform stress cardiac imaging or coronary angiography in patients without cardiac symptoms unless high-risk markers are present.	American Society of Nuclear Cardiology
Avoid using stress echocardiograms on asymptomatic patients who meet "low risk" scoring criteria for coronary disease.	American Society of Echocardiography
Don't perform coronary CMR in the initial evaluation of asymptomatic patients.	Society for Cardiovascular Magnetic Resonance
Don't perform stress cardiovascular magnetic resonance (CMR) in the initial evaluation of chest pain patients with low pretest probability of coronary artery disease.	Society for Cardiovascular Magnetic Resonance
Don't screen for ovarian cancer in asymptomatic women at average risk.	American College of Obstetricians and Gynecologists
Don't screen low risk women with CA-125 or ultrasound for ovarian cancer.	Society of Gynecologic Oncology
Don't take a multi-vitamin, vitamin E or beta carotene to prevent cardiovascular disease or cancer.	American College of Preventive Medicine
Don't prescribe biologics for rheumatoid arthritis before a trial of methotrexate (or other conventional non-biologic DMARDs).	American College of Rheumatology
For a patient with functional abdominal pain syndrome (as per ROME III criteria) computed tomography (CT) scans should not be repeated unless there is a major change in clinical findings or symptoms.	American Gastroenterological Association
Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present.	American Geriatrics Society
Don't treat asymptomatic bacteriuria with antibiotics.	Infectious Diseases Society of America
Avoid using PET or PET-CT scanning as part of routine follow-up care to monitor for a cancer recurrence in asymptomatic patients who have finished initial treatment to eliminate the cancer unless there is high-level evidence that such imaging will change the outcome.	American Society of Clinical Oncology
Don't perform PET, CT, and radionuclide bone scans in the staging of early breast cancer at low risk for metastasis.	American Society of Clinical Oncology
Don't perform PET, CT, and radionuclide bone scans in the staging of early prostate cancer at low risk for metastasis.	American Society of Clinical Oncology
Don't initiate management of low-risk prostate cancer without discussing active surveillance.	American Society for Radiation Oncology
Don't recommend bed rest for more than 48 hours when treating low back pain.	North American Spine Society
Avoid coronary angiography in post-coronary artery bypass graft (CABG) and post-PCI patients who are asymptomatic, or who have normal or mildly abnormal	Society for Cardiovascular Angiography and Interventions

stress tests and stable symptoms not limiting quality of life.	
Don't perform stress CMR in patients with acute chest pain and high probability of coronary artery disease.	Society for Cardiovascular Magnetic Resonance
Avoid routine imaging for cancer surveillance in women with gynecologic cancer, specifically ovarian, endometrial, cervical, vulvar and vaginal cancer.	Society of Gynecologic Oncology
Patients with suspected or biopsy proven Stage I NSCLC do not require brain imaging prior to definitive care in the absence of neurologic symptoms.	The Society of Thoracic Surgeons
CWI recommendations without S3-guideline equivalents associated with good methodological quality and relevant meta-literature (category "2A")	
Avoid CT pulmonary angiography in emergency department patients with a low-pretest probability of pulmonary embolism and either a negative Pulmonary Embolism Rule-Out Criteria (PERC) or a negative D-dimer.	American College of Emergency Physicians
Don't perform chest computed tomography (CT angiography) to evaluate for possible pulmonary embolism in patients with a low clinical probability and negative results of a highly sensitive D-dimer assay.	American College of Chest Physicians and American Thoracic Society
Don't place an indwelling urinary catheter to manage urinary incontinence.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Don't place or maintain a urinary catheter in a patient unless there is a specific indication to do so.	American Academy of Nursing
Avoid placing indwelling urinary catheters in the emergency department for either urine output monitoring in stable patients who can void, or for patient or staff convenience.	American College of Emergency Physicians
Don't place, or leave in place, urinary catheters for incontinence or convenience or monitoring of output for non-critically ill patients (acceptable indications: critical illness, obstruction, hospice, preoperatively for <2 days for urologic procedures; use weights instead to monitor diuresis).	Society of Hospital Medicine – Adult Hospital Medicine
Don't initiate antihypertensive treatment in individuals ≥60 years of age for systolic blood pressure (SBP) <150 mm Hg or diastolic blood pressure (DBP) <90 mm Hg.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Don't recommend screening for breast, colorectal or prostate cancer if life expectancy is estimated to be less than 10 years.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Avoid colorectal cancer screening tests on asymptomatic patients with a life expectancy of less than 10 years and no family or personal history of colorectal neoplasia.	American College of Surgeons
Don't recommend screening for breast, colorectal, prostate or lung cancer without considering life expectancy and the risks of testing, overdiagnosis and overtreatment.	American Geriatrics Society
Don't perform routine cancer screening for dialysis patients with limited life expectancies without signs or symptoms.	American Society of Nephrology
Don't recommend cancer screening in adults with life expectancy of less than 10 years.	Society of General Internal Medicine
Don't obtain a C. difficile toxin test to confirm "cure" if symptoms have resolved.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Don't insert percutaneous feeding tubes in individuals with advanced dementia. Instead, offer oral assisted	AMDA – The Society for Post-Acute and Long-Term Care Medicine

feedings.	
Don't use sliding scale insulin (SSI) for long-term diabetes management for individuals residing in the nursing home.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Don't obtain a urine culture unless there are clear signs and symptoms that localize to the urinary tract.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Avoid the use of surveillance cultures for the screening and treatment of asymptomatic bacteruria.	American Academy of Pediatrics
Don't order annual electrocardiograms (EKGs) or any other cardiac screening for low-risk patients without symptoms.	American Academy of Family Physicians
Don't prescribe antibiotics for otitis media in children aged 2-12 years with non-severe symptoms where the observation option is reasonable.	American Academy of Family Physicians
Don't screen women older than 65 years of age for cervical cancer who have had adequate prior screening and are not otherwise at high risk for cervical cancer.	American Academy of Family Physicians
Don't perform screening for cervical cancer in low-risk women aged 65 years or older and in women who have had a total hysterectomy for benign disease.	American College of Preventive Medicine
Don't schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks, 0 days gestational age.	American Academy of Family Physicians
Don't schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks 0 days gestational age.	American College of Obstetricians and Gynecologists
Don't screen women younger than 30 years of age for cervical cancer with HPV testing, alone or in combination with cytology.	American Academy of Family Physicians
Avoid elective, non-medically indicated inductions of labor between 39 weeks, 0 days and 41 weeks, 0 days unless the cervix is deemed favorable.	American Academy of Family Physicians
Don't schedule elective, non-medically indicated inductions of labor between 39 weeks 0 days and 41 weeks 0 days unless the cervix is deemed favorable.	American College of Obstetricians and Gynecologists
Don't perform Pap smears on women younger than 21 or who have had a hysterectomy for non-cancer disease.	American Academy of Family Physicians
Don't screen adolescents for scoliosis.	American Academy of Family Physicians
Don't perform voiding cystourethrogram (VCUG) routinely in first febrile urinary tract infection (UTI) in children aged 2 -24 months.	American Academy of Family Physicians
Don't perform imaging of the carotid arteries for simple syncope without other neurologic symptoms.	American Academy of Neurology
Don't recommend CEA for asymptomatic carotid stenosis unless the complication rate is low (<3%).	American Academy of Neurology
Don't perform electroencephalography (EEG) for headaches.	American Academy of Neurology
Don't prescribe interferon-beta or glatiramer acetate to patients with disability from progressive, non-relapsing forms of multiple sclerosis.	American Academy of Neurology
Don't automatically initiate continuous electronic fetal heart rate (FHR) monitoring during labor for women without risk factors; consider intermittent auscultation (IA) first.	American Academy of Nursing
Don't routinely use blood products to reverse warfarin.	American Association of Blood Banks
Don't administer plasma or prothrombin complex concentrates for non-emergent reversal of vitamin K antagonists (i.e. outside of the setting of major bleeding, intracranial hemorrhage or anticipated	American Society of Hematology

emergent surgery).	
Don't transfuse more units of blood than absolutely necessary.	American Association of Blood Banks
Don't transfuse more than the minimum number of red blood cell (RBC) units necessary to relieve symptoms of anemia or to return a patient to a safe hemoglobin range (7 to 8 g/dL in stable, non-cardiac in-patients).	American Society of Hematology
Don't perform stress cardiac imaging or advanced non-invasive imaging as a pre-operative assessment in patients scheduled to undergo low-risk non cardiac surgery.	American College of Cardiology
Don't obtain baseline diagnostic cardiac testing (trans-thoracic/esophageal echocardiography – TTE/TEE) or cardiac stress testing in asymptomatic stable patients with known cardiac disease (e.g., CAD, valvular disease) undergoing low or moderate risk non-cardiac surgery.	American Society of Anesthesiologists
Don't perform cardiac imaging as a pre-operative assessment in patients scheduled to undergo low- or intermediate- risk non-cardiac surgery.	American Society of Nuclear Cardiology
Don't perform stress CMR as a pre-operative assessment in patients scheduled to undergo low-risk, non-cardiac surgery.	Society for Cardiovascular Magnetic Resonance
Patients who have no cardiac history and good functional status do not require preoperative stress testing prior to non-cardiac thoracic surgery.	The Society of Thoracic Surgeons
Avoid cardiovascular testing for patients undergoing low-risk surgery.	Society for Vascular Medicine
Avoid computed tomography (CT) scans of the head in emergency department patients with minor head injury who are at low risk based on validated decision rules.	American College of Emergency Physicians
Avoid ordering a brain CT or brain MRI to evaluate an acute concussion unless there are progressive neurological symptoms, focal neurological findings on exam or there is concern for a skull fracture.	American Medical Society for Sports Medicine
Avoid instituting intravenous (IV) fluids before doing a trial or oral rehydration therapy in uncomplicated emergency department cases of mild to moderate dehydration in children.	American College of Emergency Physicians
Don't order low back X-rays as part of a routine preplacement medical examination.	American College of Occupational and Environmental Medicine
Don't prescribe opioids for treatment of chronic or acute pain for workers who perform safety-sensitive jobs such as operating motor vehicles, forklifts, cranes or other heavy equipment.	American College of Occupational and Environmental Medicine
Don't routinely order sleep studies (polysomnogram) to screen for/diagnose sleep disorders in workers suffering from chronic fatigue/insomnia.	American College of Occupational and Environmental Medicine
Don't routinely order X-ray for diagnosis of plantar fasciitis/heel pain in employees who stand or walk at work.	American College of Occupational and Environmental Medicine
Don't initially obtain X-rays for injured workers with acute non-specific low back pain.	American College of Occupational and Environmental Medicine
Don't test ANA sub-serologies without a positive ANA and clinical suspicion of immune-mediated disease.	American College of Rheumatology
Don't order autoantibody panels unless positive antinuclear antibodies (ANA) and evidence of rheumatic disease.	American College of Rheumatology – Pediatric Rheumatology
Don't perform methotrexate toxicity labs more often	American College of Rheumatology – Pediatric

than every 12 weeks on stable doses.	Rheumatology
Don't perform MRI of the peripheral joints to routinely monitor inflammatory arthritis.	American College of Rheumatology
Don't routinely repeat DXA scans more often than once every two years.	American College of Rheumatology
Don't routinely perform surveillance joint radiographs to monitor juvenile idiopathic arthritis (JIA) disease activity.	American College of Rheumatology – Pediatric Rheumatology
Don't test for Lyme disease as a cause of musculoskeletal symptoms without an exposure history and appropriate exam findings.	American College of Rheumatology
Don't use antipsychotics as the first choice to treat behavioral and psychological symptoms of dementia.	American Geriatrics Society
Don't routinely use antipsychotics as first choice to treat behavioral and psychological symptoms of dementia.	American Psychiatric Association
Don't prescribe antipsychotic medications for behavioral and psychological symptoms of dementia (BPSD) in individuals with dementia without an assessment for an underlying cause of the behavior.	AMDA – The Society for Post-Acute and Long-Term Care Medicine
Don't treat with an anticoagulant for more than three months in a patient with a first venous thromboembolism (VTE) occurring in the setting of a major transient risk factor.	American Society of Hematology
Don't perform baseline or routine surveillance computed tomography (CT) scans in patients with asymptomatic, early-stage chronic lymphocytic leukemia (CLL).	American Society of Hematology
Don't use inferior vena cava (IVC) filters routinely in patients with acute VTE.	American Society of Hematology
Don't administer plasma or prothrombin complex concentrates for non-emergent reversal of vitamin K antagonists (i.e. outside of the setting of major bleeding, intracranial hemorrhage or anticipated emergent surgery).	American Society of Hematology
Don't routinely transfuse patients with sickle cell disease (SCD) for chronic anemia or uncomplicated pain crisis without an appropriate clinical indication.	American Society of Hematology
Don't test for thrombophilia in adult patients with venous thromboembolism (VTE) occurring in the setting of major transient risk factors (surgery, trauma or prolonged immobility).	American Society of Hematology
Don't test or treat for suspected heparin-induced thrombocytopenia (HIT) in patients with a low pre-test probability of HIT.	American Society of Hematology
Don't treat patients with immune thrombocytopenic purpura (ITP) in the absence of bleeding or a very low platelet count.	American Society of Hematology
Avoid using drains in breast reduction mammoplasty.	American Society of Plastic Surgeons
Avoid continuing prophylactic antibiotics for greater than 24 hours after a surgical procedure.	American Society of Plastic Surgeons
Avoid performing routine and follow-up mammograms of reconstructed breasts after mastectomies.	American Society of Plastic Surgeons
Avoid performing routine mammograms before breast surgery.	American Society of Plastic Surgeons
Don't routinely use extended fractionation schemes (>10 fractions) for palliation of bone metastases.	American Society for Radiation Oncology
Don't initiate non-curative radiation therapy without defining the goals of treatment with the patient and	American Society for Radiation Oncology

considering palliative care referral.	
Don't recommend radiation following hysterectomy for endometrial cancer patients with low-risk disease.	American Society for Radiation Oncology
Don't use aloe vera on skin to prevent or treat radiodermatitis.	American Academy of Nursing
Don't use mixed medication mouthwash, commonly termed "magic mouthwash," to prevent or manage cancer treatment-induced oral mucositis.	American Academy of Nursing
Don't use L-carnitine/acetyl-L-carnitine supplements to prevent or treat symptoms of peripheral neuropathy in patients receiving chemotherapy for treatment of cancer.	American Academy of Nursing
Don't treat gastroesophageal reflux in infants routinely with acid suppression therapy.	Society of Hospital Medicine – Pediatric Hospital Medicine
Don't routinely use bronchodilators in children with bronchiolitis.	Society of Hospital Medicine – Pediatric Hospital Medicine
Don't order chest radiographs in children with uncomplicated asthma or bronchiolitis.	Society of Hospital Medicine – Pediatric Hospital Medicine
Don't use continuous pulse oximetry routinely in children with acute respiratory illness unless they are on supplemental oxygen.	Society of Hospital Medicine – Pediatric Hospital Medicine
Don't use systemic corticosteroids in children under 2 years of age with an uncomplicated lower respiratory tract infection.	Society of Hospital Medicine – Pediatric Hospital Medicine
Don't initiate routine evaluation of carotid artery disease prior to cardiac surgery in the absence of symptoms or other high-risk criteria.	The Society of Thoracic Surgeons
Don't perform a routine pre-discharge echocardiogram after cardiac valve replacement surgery.	The Society of Thoracic Surgeons

CWI: Choosing Wisely Initiative; GoR: Grad of recommendation