



Practice Changing UpDates

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All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

Literature review current through: **Sep 2023**.

This topic last updated: **Sep 27, 2023**.

INTRODUCTION

This section highlights selected specific new recommendations and/or updates that we anticipate may change usual clinical practice. Practice Changing UpDates focus on changes that may have significant and broad impact on practice, and therefore do not represent all updates that affect practice. These Practice Changing UpDates, reflecting important changes to UpToDate over the past year, are presented chronologically, and are discussed in greater detail in the identified topic reviews.

INFECTIOUS DISEASES (September 2023)

Updated COVID-19 mRNA vaccine recommendations

- For all individuals aged six months and older, we suggest an updated COVID-19 vaccine (2023-2024 formula) ([Grade 2C](#)). Individuals who are at highest risk of severe outcomes with COVID-19, specifically individuals 65 years or older, immunocompromised individuals, and individuals with multiple medical comorbidities ([table 1](#)), are most likely to benefit from vaccination.

The US Food and Drug Administration and Centers for Disease Control and Prevention have updated COVID-19 vaccine authorizations and recommendations [1,2]. Available mRNA vaccines have been updated to target Omicron variant XBB.1.5 ([Moderna COVID-19 vaccine 2023-2024 formula](#) and [Pfizer COVID-19 vaccine 2023-2024 formula](#)); bivalent vaccines are no longer available. An updated vaccine is recommended for all individuals aged six months and older.

Immunocompetent individuals five years and older should receive one updated vaccine, regardless of prior vaccination history. For individuals who are four years or younger or have an immunocompromising condition ([table 1](#)), the number of recommended updated vaccines depends on their vaccination history. Our approach to COVID-19 vaccination is consistent with these recommendations. (See "[COVID-19: Vaccines](#)", section on 'Indications and vaccine selection' and "[COVID-19: Vaccines](#)", section on 'Benefits of vaccination'.)

INFECTIOUS DISEASES (September 2023)

Statins for primary prevention of cardiovascular disease in persons with HIV

- For persons ≥ 40 years of age with HIV and an low-density lipoprotein cholesterol ≥ 190 and/or a 10-year ASCVD score ≥ 7.5 percent, we recommend a statin (**Grade 1B**). We also suggest a statin for such patients with a 10-year ASCVD score of 5 to 7.4 percent (**Grade 2B**). For those with lower risk, we also discuss statin use, but the absolute benefit is smaller.

HIV infection is associated with an excess risk of cardiovascular disease. A randomized trial evaluated the efficacy of lipid-lowering therapy with [pitavastatin](#) for primary prevention in over 7700 persons with HIV ≥ 40 years of age receiving antiretroviral therapy who had a 10-year atherosclerotic cardiovascular disease (ASCVD) risk score < 15 percent [3]. Pitavastatin reduced the relative risk of major cardiovascular events (eg, myocardial infarction, stroke) by 35 percent compared with placebo; the trial was stopped early for this apparent benefit. Based on these data, we now advise statins in all persons ≥ 40 years of age with an ASCVD score ≥ 5 percent, particularly if the score is ≥ 7.5 percent; for those with lower baseline risk, we also discuss statin use, although the absolute benefit is smaller. For persons younger than 40 years of age, our approach is the same as in persons without HIV. (See "[Management of cardiovascular risk \(including dyslipidemia\) in patients with HIV](#)", section on 'Indications for statins'.)

PSYCHIATRY (December 2022, Modified July 2023)

Screening for anxiety in children and adults

- We suggest screening for anxiety disorders in individuals between age 8 and 65 years (**Grade 2C**).

Anxiety disorders are common but underrecognized conditions and may cause chronic distress and impaired functioning throughout the lifespan. The United States Preventive Services Task

Force now recommends screening for anxiety in all individuals ages 8 to 65 years, including pregnant and postpartum persons [4,5]. These new recommendations are supported by systematic reviews and meta-analyses in both children and adults, documenting that screening tools can accurately identify anxiety disorders and that treatment results in moderate benefits in reducing anxiety and improving disease remission [6,7]. Major harms were not identified. Evidence was insufficient to demonstrate benefits and harms in individuals <8 or >65 years, although screening may also be appropriate in these individuals. Our approach is consistent with these recommendations. (See "[Anxiety disorders in children and adolescents: Assessment and diagnosis](#)", section on 'Screening' and "[Generalized anxiety disorder in adults: Epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis](#)", section on 'Screening'.)

INFECTIOUS DISEASES; PRIMARY CARE (ADULT); FAMILY MEDICINE AND GENERAL PRACTICE (April 2023)

Expanded recommendations for hepatitis B virus screening in adults

- For most individuals without risk factors for hepatitis B virus (HBV), we suggest one-time HBV screening for those ≥ 18 years of age (**Grade 2C**). For adults at increased risk for acquiring HBV ([table 1](#)), we recommend HBV screening (**Grade 1B**).

Screening for hepatitis B virus (HBV) in adults has traditionally been recommended for those with risk factors ([table 2](#)). In March 2023, the United States Centers for Disease Control and Prevention expanded their recommendations to include universal screening for persons ≥ 18 years of age at least once during their lifetime, regardless of risk [8]. The rationale is the prevalence of chronic HBV infection in the general population (0.4 percent), the low vaccination rates in adults, and the harms of missed infection such as fulminant hepatitis and liver cancer. Testing should include hepatitis B surface antigen, hepatitis B surface antibody (anti-HB), and total hepatitis B core antibody. We support universal screening; however, screening is generally not needed if an HBV vaccine series has been completed and there is serologic evidence of immunity (anti-HBs ≥ 10 milli-international units/mL). (See "[Hepatitis B virus: Screening and diagnosis in adults](#)", section on 'Individuals without known risk for HBV infection'.)

ALLERGY AND IMMUNOLOGY (March 2023, Modified April 2023)

Cow's milk elimination alone for eosinophilic esophagitis

- In patients with eosinophilic esophagitis who opt for a dietary approach to treatment, we suggest elimination of cow's milk (in all its forms) and cross-reacting mammalian milk rather than simultaneous removal of multiple foods (**Grade 2C**).

Dietary treatment of eosinophilic esophagitis (EoE) traditionally has involved removal of multiple foods/food groups simultaneously. However, this approach is associated with poor adherence and can cause nutritional deficiencies. In a multicenter randomized trial of 129 adults with EoE that compared elimination of mammalian milk (1 food elimination diet [FED]) with removal of six foods/food groups (6FED), rates of histologic remission were similar between the two groups at six weeks (34 versus 40 percent, respectively) [9]. Improvements in disease-related quality-of-life scores and peak eosinophil counts were also similar. These results confirm earlier findings in a pediatric trial. For most patients with EoE who opt for a dietary approach to treatment, we suggest an initial empiric elimination diet of cow's milk (all forms of dairy/milk) plus cross-reacting mammalian milk (eg, goat's milk). (See "[Dietary management of eosinophilic esophagitis](#)", section on 'Efficacy of different dietary approaches'.)

NEUROLOGY (February 2023)

Mechanical thrombectomy for large ischemic core infarcts

- For patients with acute ischemic stroke, we recommend treatment with intra-arterial mechanical thrombectomy (MT), whether or not the patient received treatment with intravenous thrombolytic therapy, if the following conditions are met (**Grade 1B**): Brain imaging using CT without contrast or diffusion-weighted MRI (DWI) excludes hemorrhage and is consistent with an Alberta Stroke Program Early CT Score (ASPECTS) ≥ 3 ; CT angiography (CTA) or MR angiography (MRA) demonstrates a proximal large artery occlusion in the anterior circulation as the cause of the ischemic stroke; the patient has a persistent, potentially disabling neurologic deficit (eg, a National Institutes of Health Stroke Scale [NIHSS] score ≥ 6); the patient can start treatment (femoral puncture) within 24 hours of the time last known to be well. This recommendation applies when thrombectomy is performed at a stroke center with appropriate expertise in the use of endovascular therapy. Benefit may be most likely when imaging confirms the presence of salvageable brain tissue (eg, a mismatch by DAWN or DEFUSE 3 criteria).

Mechanical thrombectomy (MT) for acute ischemic stroke due to a large artery occlusion in the anterior circulation has been limited to patients with a small- to moderate-sized core infarct at baseline. The exclusion of patients with large core infarcts was first challenged in 2022 by results from the RESCUE-Japan LIMIT trial. The recent SELECT2 and ANGEL-ASPECT trials now

confirm that MT compared with medical treatment alone improves outcomes for patients with a large ischemic core infarct (defined by an Alberta Stroke Program Early CT Score [ASPECTS] of 3 to 5 or a core volume ≥ 50 ml) [10,11]. As an example, the SELECT2 trial showed that functional independence for patients with large infarcts was more likely with MT than with medical care alone (20 versus 7 percent) [10]. Based on these results, in addition to previously defined eligible groups, we also recommend MT for patients who have a large ischemic core infarct as defined in these trials and can start treatment within 24 hours of the time last known to be well. (See "[Mechanical thrombectomy for acute ischemic stroke](#)", section on '[Benefit for large core infarcts](#)'.)

PULMONARY AND CRITICAL CARE MEDICINE (January 2023)

New GOLD strategy for initial COPD pharmacologic management

- For patients with COPD who are less symptomatic and at low risk of exacerbation (group A), we suggest a long-acting bronchodilator rather than short-acting bronchodilators alone (**Grade 2B**). For patients with COPD who are more symptomatic or have a high risk of exacerbation (Groups B and E), we suggest initial treatment with dual long-acting bronchodilator therapy rather than a single long-acting bronchodilator alone (**Grade 2C**).

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2023 report identifies key changes for patients with COPD [12], specifically more aggressive initial bronchodilator therapy:

- Single-agent long-acting bronchodilator therapy for less severe symptoms and low exacerbation risk (Group A).
- Dual long-acting bronchodilator therapy for more severe symptoms and low exacerbation risk (Group B).
- Dual long-acting bronchodilator therapy for high exacerbation risk, regardless of symptoms (Group E, replacing previous Groups C and D categories).

It also redefines a COPD exacerbation as an event characterized by dyspnea and/or cough and sputum that worsens over ≤ 14 days with possible tachypnea and/or tachycardia caused by airway infection, pollution, or other insult to the airways. This new definition decouples exacerbations from their treatment, which had confounded earlier approaches. A new classification for severity of exacerbations was also outlined. (See "[COPD exacerbations: Clinical manifestations and evaluation](#)" and "[Stable COPD: Initial pharmacologic management](#)", section on '[Assessing disease pattern and severity](#)'.)

PEDIATRICS (November 2022, Modified January 2023)

Semaglutide for obesity in adolescents

- For adolescents with refractory obesity who opt for pharmacologic therapy, we suggest subcutaneous [semaglutide](#) rather than other agents (**Grade 2C**).

Glucagon-like peptide (GLP-1) analogs are important options for treatment of type 2 diabetes and/or obesity in adults. In a 68-week randomized trial in 201 adolescents with obesity, patients assigned to weekly subcutaneous [semaglutide](#), a GLP-1 analog, had substantial weight loss compared with lifestyle intervention alone (17.7 kg greater weight loss compared with placebo; 6 kg/m² greater decrease in body mass index [BMI]) [13]. Gastrointestinal adverse events were common in both groups but were generally mild and rarely led to treatment discontinuation. While head-to-head trials have not been performed in adolescents, indirect evidence suggests greater weight loss with semaglutide than the alternatives, including [liraglutide](#) and [metformin](#). Based on these findings, we now suggest semaglutide over other agents for pharmacotherapy of obesity in selected adolescents. (See "[Prevention and management of childhood obesity in the primary care setting](#)", section on 'Pharmacotherapy'.)

EMERGENCY MEDICINE (ADULT AND PEDIATRIC) (December 2022)

Video laryngoscopy for emergency intubation in adults

- In an adult for whom laryngoscopy is indicated for emergency intubation, we suggest using a video laryngoscope instead of a direct laryngoscope (**Grade 2B**).

Video laryngoscopes (VLs) are rigid devices that allow glottic visualization without a direct line of sight, and they are increasingly being used for rapid sequence intubation in the emergency department. In a meta-analysis of 222 trials in adults (most in the elective surgery setting), Macintosh-style, hyperangulated, and channelled VLs all reduced the rate of failed intubation, increased first-pass attempt success, improved the glottic view, and reduced peri-intubation hypoxia compared with a direct laryngoscope (DL) [14]. Given these findings, we suggest using a VL, if available, instead of a DL when laryngoscopy is indicated for emergency intubation. (See "[Overview of advanced airway management in adults for emergency medicine and critical care](#)", section on 'Choice of laryngoscopy technique'.)

INFECTIOUS DISEASES (December 2022)

First trimester treatment of malaria with artemisinin derivatives

- For treatment of uncomplicated chloroquine-resistant *Plasmodium falciparum* malaria during the first trimester, we suggest treatment with [artemether-lumefantrine](#), rather than a quinine-based regimen (**Grade 2B**). We also suggest artemether-lumefantrine for chloroquine-resistant non-*falciparum* malaria during the first trimester (**Grade 2C**).

Artemisinin combination therapy (ACT) has become the preferred treatment for uncomplicated malaria in most patients, but use for treatment of chloroquine-resistant malaria in the first trimester has been avoided because of limited safety data. However, in a 2022 meta-analysis of prospective data from >700 pregnancies with confirmed first trimester exposure to ACT and >1000 pregnancies with confirmed first trimester exposure to non-ACTs, adverse pregnancy outcomes occurred less often among those who received ACT, although the result was not statistically significant (5.7 versus 8.9 percent; adjusted hazard ratio [aHR] 0.71, 95% CI 0.49-1.03) [15]. [Artemether-lumefantrine](#) accounted for 70 percent of the ACT exposures and was associated with a lower risk of adverse pregnancy outcome compared with oral [quinine](#) (4.8 versus 9.2 percent; aHR 0.58, 95% CI 0.36-0.92). Based on these data, we now suggest artemether-lumefantrine for treatment of chloroquine-resistant malaria during the first trimester. (See "[Malaria in pregnancy: Prevention and treatment](#)", section on 'Drug safety'.)

NEPHROLOGY AND HYPERTENSION (November 2022)

Finerenone in patients with diabetic kidney disease

- Among patients with type 2 diabetes who have measured or estimated albuminuria ≥ 30 mg/day despite an angiotensin inhibitor and a sodium-glucose co-transporter 2 (SGLT2) inhibitor, we suggest treatment with a nonsteroidal selective mineralocorticoid receptor antagonist (MRA, specifically [finerenone](#)) (**Grade 2B**), where available.

Sodium-glucose co-transporter 2 (SGLT2) inhibitors and [finerenone](#) (a nonsteroidal mineralocorticoid receptor antagonist) prevent important adverse kidney and cardiovascular outcomes in patients with diabetic kidney disease (DKD). The 2022 guidelines from the American Diabetes Association (ADA) and the Kidney Disease: Improving Global Outcomes (KDIGO) on the treatment of patients with DKD advise the use of SGLT2 inhibitors in all patients with DKD; they also advise the use of finerenone in patients who have increased albuminuria despite treatment with an angiotensin inhibitor and an SGLT2 inhibitor [16,17]. We agree with these guidelines and now suggest use of finerenone in patients with albuminuria despite other recommended therapies, except when serum potassium is elevated (serum potassium >4.8

mEq/L or estimated glomerular filtration rate <25 mL/min/1.73 m²). (See ["Treatment of diabetic kidney disease"](#), section on 'Type 2 diabetes: Treat with additional kidney-protective therapy'.)

NEPHROLOGY AND HYPERTENSION (November 2022)

SGLT2 inhibitors in patients with nondiabetic proteinuric chronic kidney disease

- In patients with chronic nondiabetic kidney disease with proteinuria (albuminuria ≥ 300 mg/day or proteinuria ≥ 500 mg/day), we recommend treatment with a sodium-glucose co-transporter 2 (SGLT2) inhibitor (**Grade 1B**).

Sodium-glucose co-transporter 2 (SGLT2) inhibitors are recommended in patients with diabetic kidney disease; previously, only one large trial examined their effects in nondiabetic chronic kidney disease. In the EMPA-KIDNEY trial, 6609 patients with estimated glomerular filtration rate (eGFR) 20 to 44 mL/min/1.73 m² (regardless of albuminuria) or 45 to 89 mL/min/1.73 m² (if albumin-to-creatinine ratio was at least 200 mg/g) were randomly assigned to [empagliflozin](#) 10 mg daily or placebo [18]. At two years, empagliflozin reduced the incidence of end-stage kidney disease, the incidence of a sustained decline in eGFR to <10 mL/min/1.73 m², and the incidence of a sustained decrease in eGFR of 40 percent or more; the risks of all-cause mortality and nonfatal cardiovascular events were similar between groups. The benefit from empagliflozin was larger in patients with albumin-to-creatinine ratio ≥ 300 mg/g and substantially less in patients with lower albumin excretion. We now recommend SGLT2 inhibitor therapy in patients with nondiabetic chronic kidney disease and albuminuria. (See ["Overview of the management of chronic kidney disease in adults"](#), section on 'Patients with proteinuria'.)

NEUROLOGY (October 2022)

Sodium phenylbutyrate-taurursodiol for amyotrophic lateral sclerosis

- For all patients with amyotrophic lateral sclerosis, we suggest treatment with [sodium phenylbutyrate-taurursodiol](#) (**Grade 2B**), in addition to [riluzole](#) and [edaravone](#).

[Sodium phenylbutyrate-taurursodiol](#) (PB-TURSO) is a combination of two orally available drugs that each reduce neuronal cell death in preclinical models of amyotrophic lateral sclerosis (ALS). In a randomized trial of 137 patients with ALS (75 percent also taking [riluzole](#) and/or [edaravone](#)) who were within 18 months of symptom onset, patients assigned to PB-TURSO showed a slower median rate of monthly functional decline than those assigned to placebo by 24-week follow-up [19]. There were nonsignificant trends toward slower decline in both vital capacity and muscle

strength with treatment. In a subsequent analysis of patients who continued open-label treatment (up to 35 months), those originally randomized to PB-TURSO had a longer median time to tracheostomy (26 versus 19 months) and a longer median time to first hospitalization [20]. Based on these results, the combination product received regulatory approval in the United States and Canada [21,22]. We now suggest use of PB-TURSO for all patients with ALS, along with riluzole (prioritized as initial therapy) and edaravone. (See "[Disease-modifying treatment of amyotrophic lateral sclerosis](#)", section on 'Efficacy'.)

GENERAL SURGERY (September 2022)

Role of wound packing after drainage of perianal and perirectal abscess

- For most patients with a perianal or perirectal abscess, we suggest not packing the wound after drainage (**Grade 2C**).

After incision and drainage of a perianal or perirectal abscess, it is common practice to pack the wound, under the assumption that this will facilitate further drainage by wicking and prevent premature skin closure. In the PPAC2 trial of 443 patients with a primary perianal abscess, nonpacking, compared with packing, resulted in similar rates of fistula formation (11 versus 15 percent) and abscess recurrence (6 versus 3 percent), differences that were not statistically significant [23]. However, the nonpacking group had lower average pain scores (28 versus 38 on a 100-point visual analog scale). Given these and similar findings from two earlier small trials, we now suggest **not** packing the wound after drainage of perianal or perirectal abscess. (See "[Perianal and perirectal abscess](#)", section on 'Role of wound packing'.)

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GRAPHICS

Moderate to severe immunocompromising conditions that may result in suboptimal COVID-19 vaccine response^[1]

Active treatment for solid tumor and hematologic malignancies
Hematologic malignancies associated with poor responses to COVID-19 vaccines regardless of current treatment status (eg, chronic lymphocytic leukemia, non-Hodgkin lymphoma, multiple myeloma, acute leukemia)
Receipt of solid-organ transplant or an islet transplant and taking immunosuppressive therapy
Receipt of chimeric antigen receptor (CAR)-T cell therapy or hematopoietic cell transplant (HCT) (within 2 years of transplantation or taking immunosuppressive therapy)*
Moderate or severe primary immunodeficiency (eg, common variable immunodeficiency disease, severe combined immunodeficiency, DiGeorge syndrome, Wiskott-Aldrich syndrome)
Advanced HIV infection (HIV and CD4 cell counts less than 200/microL, history of an AIDS-defining illness without immune reconstitution, or clinical manifestations of symptomatic HIV) or untreated HIV infection
Active treatment with: <ul style="list-style-type: none"> ▪ High-dose corticosteroids (ie, ≥ 20 mg prednisone or equivalent per day for ≥ 2 weeks) ▪ Alkylating agents ▪ Antimetabolites ▪ Transplant-related immunosuppressive drugs ▪ Cancer chemotherapeutic agents classified as severely immunosuppressive ▪ TNF blockers ▪ Other biologic agents that are immunosuppressive or immunomodulatory (eg, B cell-depleting agents)

In the United States, the Centers for Disease Control and Prevention lists the above conditions as examples of immunocompromising conditions that warrant additional COVID-19 vaccine doses. This list is not exhaustive; other immunocompromising conditions, such as impaired splenic function, may also warrant the same vaccine adjustments. Refer to other UpToDate content for specifics of vaccine doses and intervals.

CAR: chimeric antigen receptor; TNF: tumor necrosis factor; ACIP: Advisory Committee on Immunization Practices.

* For those who received COVID-19 vaccination prior to hematopoietic stem cell transplant or CAR-T cell therapy, repeat vaccination is recommended at least 3 months after the transplant or therapy.

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Groups at increased risk for hepatitis B virus

Individuals at risk for HBV due to vertical transmission (ie, mother to child transmission)

- Individuals born in regions with high ($\geq 8\%$) or intermediate ($\geq 2\%$) [prevalence rates](#) for HBV, including immigrants and adopted children*
- Infants born to pregnant persons who are HBsAg-positive¶
- US-born persons not vaccinated as infants whose parents were born in regions with high [HBV endemicity](#) ($\geq 8\%$)*

Individuals at risk due to horizontal transmission (ie, percutaneous or mucosal exposure to blood or body fluids contaminated with blood)^A

- Household contacts of HBsAg-positive persons
- Needle sharing or sexual contacts of HBsAg-positive persons
- Individuals who have ever injected drugs
- Individuals with multiple sexual partners and/or history of sexually transmitted infections
- Men who have sex with men
- Inmates of correctional facilities or other detention settings
- Individuals with HIV infection◇
- Individuals with current or past HCV infection[§]
- Individuals with end-stage kidney disease on maintenance renal dialysis

Other individuals

- Individuals with elevated alanine aminotransferase or aspartate aminotransferase levels of unknown origin
- Individuals who request HBV testing

In the United States, screening for HBV includes^[4]:

- **Risk-based screening** – For all individuals (including children and adolescents), screen those who have any of the risk factors listed in the table if they might have been susceptible during the period of increased risk[¥]. For those with ongoing risk factors (ie, for horizontal transmission) who remain susceptible, continue to test periodically.^Δ
- **Universal screening** – For individuals ≥ 18 years of age, screen at least once in a lifetime. However, for those without risk factors for HBV, screening is generally not needed if there is documentation of completing a hepatitis B vaccine series and evidence of immunity (anti-HBs ≥ 10 milli-international units/mL) after vaccination.[‡]
- **Pregnancy screening** – Screen all pregnant people during each pregnancy, regardless of vaccination status or history of prior testing.

Refer to UpToDate content on screening and diagnosis of HBV, HBV immunization, and HBV and pregnancy for more detailed information on screening and vaccination.

HBV: hepatitis B virus; HBsAg: hepatitis B surface antigen; US: United States; HIV: human immunodeficiency virus; HCV: hepatitis C virus; anti-HBs: hepatitis B surface antibody; anti-HBc: hepatitis B core antibodies; HBIG: hepatitis B immune globulin.

* If HBsAg-positive persons are found in first-generation immigrants of a family, subsequent generations should be tested.

¶ To reduce the risk of perinatal transmission, infants born to HBsAg-positive mothers should receive HBIG and hepatitis B vaccine as soon as possible and within 12 hours of birth and then complete the hepatitis B series. Post-vaccination serology should be obtained at 9 to 12 months. Refer to the UpToDate topic that discusses HBV immunization in infants.

Δ In unvaccinated individuals with ongoing HBV risk through percutaneous or mucosal exposure, hepatitis B vaccine should be initiated at the time of screening; the need for subsequent doses will depend upon the results. Post-vaccination serology should be performed to ensure immunity. For at-risk persons who do not complete the vaccine series, repeat testing should be performed periodically (eg, every 1 to 2 years).

◇ The presence of HBV coinfection informs the choice of antiretroviral regimen. In addition, patients with HIV who are not immune should be vaccinated regardless of age or risk factors, since HBV infection has an accelerated course in coinfecting patients.

§ Patients with chronic HBV are at risk for HBV reactivation with direct-acting antiviral therapy for hepatitis C. Refer to the UpToDate topic that provides an overview of the management of hepatitis C infection.

¥ Susceptible persons include those who have never been infected with HBV (ie, HBsAg-negative, total anti-HBc-negative, and anti-HBs-negative) and either did not complete a HepB vaccine series per the Advisory Committee on Immunization Practices recommendations or who are known to be vaccine nonresponders.

‡ For most patients who remain without risk factors for acquiring HBV, repeat screening is not warranted. However, screening prior to blood, plasma, organ, tissue, or semen donation is routinely performed, regardless of the person's prior history. In addition, screening is warranted prior to initiating immunosuppressive therapy (eg, corticosteroids, biologics, cancer chemotherapy, anti-rejection therapies) since persons with HBV are at risk for HBV reactivation. Refer to the UpToDate topic on HBV reactivation.

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