

**Adult Immunization Schedule for Patients with Gastrointestinal Conditions**  
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Vaccine	Dosing Schedule	
SD quadrivalent influenza vaccine, inactivated	1 dose seasonally for all patients aged 18–64 yr.	
HD influenza vaccine, inactivated <sup>1</sup>	1 dose seasonally all of those $\geq 65$ yr. or Patients with IBD on Anti-TNF monotherapy aged 18-64 yr.	
Influenza live attenuated (LAIV)	Avoid for those on immunosuppressive therapy	
Tetanus, diphtheria, pertussis (Tdap or Td)	If previously immunized, single dose of Tdap, then Td or Tdap every 10 years as well as Tdap during third trimester of each pregnancy.	
Zoster recombinant (RZV) (preferred)	2 dose series for all $\geq 50$ years administered 2-6 months apart Consider in patients with IBD age 40–49 yr. with risk factors <sup>2</sup>	
Zoster live (ZVL)	Use only if immediate immunization is necessary, RZV is unavailable and patient immunocompetent. Not available in U.S. after July 1, 2020	
Human papillomavirus (9vHPV)	Age 18- 26 years three doses 0, 1-2- and 6-month	Age 27-45 years three doses if likely to have new sexual partners
Pneumococcal conjugate 13 valent (PCV13) and Polysaccharide 23 valent (PPSV23)	For all patients initiating or on immunosuppression: A single dose of PCV13 followed by PPSV23 in 8 weeks; may repeat PPSV23 after 5 years  For patients with chronic liver disease age 18-64 yr.: A single dose of PPSV23  A single dose of PPSV23 for all ages 65 and above.	
Hepatitis A (Hep A)	2 dose series Hep A (Havrix or Vaqta 6-12 months apart) or 3 doses series Hep A-Hep B (Twinrix at 0, 1, 6 months)	

Hepatitis B (Hep B)	Engerix or Recombivax: Three doses series on 0, 1, 6 month schedule <sup>3</sup> 3 doses series Hep A-Hep B (Twinrix at 0, 1, 6 months)	Heplisav: 2 dose series (HepB-CpG) at 0 and 1 month <sup>3</sup>
Meningococcal A, C,W,Y (Men ACWY); MenB	Adults with risk factors <sup>4</sup> should receive immunization. If risk factors continue to be present, MenACWY every 5 years; MenB one year after completing series and then every 2-3 years.	
Measles, mumps, rubella (MMR) Live attenuated	2-doses at least 4 weeks apart if previously did not receive any MMR or 1 dose if previously received 1 dose MMR. Contraindicated in those receiving systemic immunosuppression.	
Varicella (VAR) Live attenuated	2-doses 4–8 wk apart if previously did not receive series. (if born in 1980 or later or for those born before 1980 if no history of disease or laboratory evidence of immunity)	

HD, high dose; LAIV, influenza live attenuated; MMR, measles, mumps, and rubella; PCV13, 13 valent pneumococcal conjugate vaccine; PPSV23, 23 valent pneumococcal polysaccharide vaccine; RZV, recombinant zoster vaccine; SD, standard dose; TNF, tumor necrosis factor; VAR, varicella; ZVL, Zoster Live; 9vHPV, Human papillomavirus 9 valent.

The HD influenza vaccine, which contains 4 times more hemagglutinin than the SD vaccine, was licensed based on its ability to induce higher antibody concentrations and provides better protection against influenza in adults ages 65 years or older. In a randomized clinical trial in patients with inflammatory bowel disease on anti-TNF monotherapy received the HD influenza vaccine had significantly higher post immunization antibody levels compared with SD vaccine

<sup>2</sup> Increased risk for zoster (i) all patients with history of zoster; (ii) those requiring repeated courses of corticosteroids; (iii) patients on tofacitinib, with risk factors for zoster (such as concurrent steroid use, Asian race, diabetes mellitus, and prior anti-TNF failure) and (iv) those on combination therapy requiring corticosteroids

<sup>3</sup>Check antibody to the surface antigen (anti-HBs) 4-8 weeks after completing series

<sup>4</sup>Those in college residence halls if routine adolescent immunization missed, military recruits, outbreaks, and specific immunocompromising conditions, including asplenia, complement deficiency and HIV.