Adalimumab

Brand names	Humira
Medication error potential	Look-alike, sound-alike drug names[1] Humira may be confused with Humulin or Humalog. Humira Pen may be confused with HumaPen Memoir.
Contraindications and warnings	**U.S. boxed warnings** **Risk of serious infections:** Patients receiving adalimumab are at risk for developing serious infections, including tuberculosis, bacterial sepsis, invasive fungal infections and other opportunistic infections. Those with active infections should not begin treatment. Discontinue therapy in those who develop serious infection or sepsis while on treatment.[2] Patients should be evaluated for latent tuberculosis infection with a tuberculin skin test. If the skin test is positive, treatment of tuberculosis should be started prior to beginning treatment with adalimumab.[2] (See the Comments section.) **Hepatosplenic T-cell lymphomas:** These have been reported in adolescents and young *adults* with inflammatory bowel disease treated with tumor necrosis factor (TNF) blockers, including adalimumab.[2] **Lymphoma and other malignancies:** There is a increased risk of lymphoma and other cancers in children and adolescents treated with TNF blockers, including adalimumab.[2] **Other warnings:** Anaphylaxis has been reported.[2] Appropriate medical care should be available in the event this occurs. Hepatitis B carriers should be monitored during and several months after completing therapy, due to the risk of reactivation of hepatitis B. If reactivation occurs, stop therapy and begin antiviral treatment.[2] The needle cover of the prefilled syringes contains latex. Those with latex allergy should not handle the syringes.[2,3]
Infusion-related cautions	None reported
Dosage	**Juvenile idiopathic arthritis, >2–17 years**[2-4] **10 kg to <15 kg:** 10 mg sub-Q every other week **15 kg to <30 kg:** 20 mg sub-Q every other week **≥30 kg:** 40 mg sub-Q every other week **Crohn disease, moderate-to-severe, refractory: ≥6–18 years**[5-7] **Induction** **17 kg to <40 kg:** Two doses of 40 mg on day 1, followed by a dose of 40 mg on day 15 **≥40 kg:** Four doses of 40 mg on day 1, (or two doses of 40 mg daily for two consecutive days), followed by two doses of 40 mg on day 15 **Maintenance:** Start on day 29 **17 kg to <40 kg:** 20 mg every other week **≥40 kg:** 40 mg every other week **Ulcerative colitis, moderate to severe, refractory**[8] **Induction:** 100 mg/m^2 (maximum dose 160 mg), followed by 50 mg/m^2 (maximum dose 80 mg) on day 15 **Maintenance:** Start on day 29; 25 mg/m^2 every other week (maximum dose 40 mg).

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Dosage *(cont.)*	**Uveitis**[9-12] **BSA dosing: ≥4 years:** 24 or 40 mg/m^2 q 2 wk (maximum dose 40 mg) **Weight-based dosing: ≥2 years and adolescents** **<30 kg:** 20 mg every other week **≥30 kg:** 40 mg every other week ***Adults:*** Adalimumab is used to treat rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, Crohn disease, ulcerative colitis, and plaque psoriasis in *adults*.[2,3]
Dosage adjustment in organ dysfunction	None reported[2]
Maximum dosage	40 mg as a single injection. Higher doses of up to 160 mg may require multiple injections.
Additives	None
Suitable diluents	Not diluted
Maximum concentration	50 mg/mL (commercially available)
Preparation and delivery	Available as disposable prefilled syringes (20 mg/0.4 mL, 40 mg/0.8 mL) or as a prefilled injection pen (40 mg/0.8 mL). Must be refrigerated until use.[2,3] Allow to come to room temp for 15–30 minutes prior to administration. Also, it is stable at room temperature for 14 days. **Photosensitivity:** Protect from light exposure until ready to use.
IV push	Not indicated
Intermittent infusion	Not indicated
Continuous infusion	Not indicated
Other routes of administration	Administer by sub-Q injection.[2,3]
Comments	A negative skin test for tuberculosis does not rule out the possibility of disease because patients with immune diseases may exhibit cutaneous anergy.[13] **Drug interactions:** An increased incidence of infection has been noted when used with anakinra or abatacept.[2,3] Live vaccines should not be given with adalimumab.[2,3] Tacrolimus (topical) may increase adalimumab concentration. Adalimumab may decrease cyclosporine and warfarin concentration. Methotrexate decreases clearance; however, no change in adalimumab dosage is recommended.[2]

REFERENCES

1. Institute for Safe Medication Practices. List of confused drug names. https://www.ismp.org/recommendations/confused-drug-names-list. Accessed March 23, 2016.
2. Humira [package insert]. North Chicago, IL: Abbott Laboratories; March 2016.