

# Biologics at a Glance

BRAND NAME Generic Name Manufacturer	NUCALA Mepolizumab GSK	CINQAIR Reslizumab Teva	FASENRA Benralzumab AstraZeneca
Pharmacology	Binds to IL-5 - inhibiting the bioactivity of IL-5 by blocking its binding to the alpha chain of the IL-5 receptor complex expressed on the eosinophil cell surface.	Binds to IL-5 - inhibiting the bioactivity of IL-5 by blocking its binding to the alpha chain of the IL-5 receptor complex expressed on the eosinophil cell surface.	Binds to alpha subunit of IL-5 receptor on eosinophils, blocking action of IL-5, and induces apoptosis of eosinophils through interaction with NK cells
Indications	Add on maintenance therapy of patients with severe asthma with an eosinophilic phenotype and EGPA	Severe asthma with an eosinophilic phenotype	Severe asthma with an eosinophilic phenotype
Lab Requirements (Suggestions)	Consider herpes zoster vaccination if medically appropriate vaccination, Eos > 150 within last 6 weeks or 300 within the past 12 months	Eos > 400	CBC - No specific range for eosinophil count, but evidence of efficacy exists for eosinophil counts over 150 per microliter
Age	>12 yr for asthma, >18 yr for EGPA	18 and older	12 and older
Dose	100mg subq every 4 weeks for asthma and 300mg Subq every 4wks for EGPA in healthcare provider office	3 mg/kg IV Q 4 weeks infused over 20-50 minutes	30 mg Q 4 weeks x 3 doses then Q 8 weeks
How Supplied	100 mg vial	100 mg/10 ml vials	30 mg prefilled syringe
How to Prescribe	Fill out the enrollment form/ application, which includes the prescription, and send to Gateway to Nucala. Gateway will verify benefits, give name of specialty pharmacy to use and if a PA is needed. Can be enrolled using the online portal.	Fill out the enrollment form/ application, which includes the prescription, and send to Teva Support Solutions. Teva Support Solutions will verify benefits, give name of specialty pharmacy to use and if a PA is needed.	Fill out the enrollment form/ application, which includes the prescription, and send to Access360. Access360 will verify benefits, give name of specialty pharmacy to use and if a PA is needed. Can be enrolled using the online portal.
Considerations for Administration Protocols	Treat patients with pre-existing helminth infections before therapy * PFT monitoring * Calling prior to appointment for mixing * 30 minute wait after injection from first dose. * Proof of Zoster Vaccine	* Given at an infusion center; Treat patients with pre-existing helminth infections before therapy	Treat patients with pre-existing helminth infections before therapy * PFT monitoring * Set prefilled syringe out 30 minutes prior to appointment * 30 minute wait after injection from first dose
Side Effects	Injection site reactions	Anaphylaxis	Injection site reactions are common
Practice Notes			

## Biologics at a Glance *(continued)*

BRAND NAME Generic Name Manufacturer	XOLAIR Omalizumab Genentech/Novartis	DUPIXENT Dupilumab Sanofi Genzyme/Regeneron
Pharmacology	Inhibits the binding of IgE to the high-affinity IgE receptor (FcεRI) on the surface of mast cells and basophils. Reduction in surface bound IgE on FcεRI-bearing cells limits the degree of release of mediators of the allergic response	A monoclonal antibody that targets the interleukin-4 receptor alpha subunit (IL-4Rα) and blocks the intercellular signalling of IL-4 and IL-13.
Indications	Moderate to severe asthma and chronic idiopathic urticaria	Moderate to severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or who cannot use these therapies and as an add-on maintenance treatment in patients with moderate-to-severe asthma with an eosinophilic phenotype or with oral corticosteroid dependent asthma
Lab Requirements (Suggestions)	Asthma - IgE > or =30; positive blood or skin test to perennial allergen Urticaria - 6 weeks of uncontrolled hives with antihistamines	<i>Atopic Dermatitis:</i> No lab requirements needed before prescribing. <i>Asthma:</i> CBC – No specific range for eosinophil count, but evidence of efficacy exists for eosinophil counts over 150 per microliter.
Age	6 and older	18 and older for atopic dermatitis; 12 and older for asthma
Dose	Asthma - varies depending on patient's weight and IgE level. Urticaria - 150mg or 300mg subq every 4 weeks. Administer in a healthcare providers office	<i>Atopic Dermatitis:</i> Initial Dose: 600 mg subq; Subsequent Doses: 300 mg subq every 2 weeks. <i>Asthma:</i> Initial dose of 400 mg (two 200 mg injections) followed by 200 mg given every other week OR an initial dose of 600 mg (two 300 mg injections) followed by 300 mg given every other week OR for patients requiring concomitant oral corticosteroids or with co-morbid moderate-to-severe atopic dermatitis for which dupilumab is indicated, start with an initial dose of 600 mg followed by 300 mg given every other week.
How Supplied	150mg vial	300mg/2mL pre-filled syringe with needle shield; 200 mg/1.14 mL solution in a single-dose pre-filled syringe with needle shield
How to Prescribe	Fill out the enrollment form/ application, which includes the prescription, and send to Access Solutions. Access Solutions will verify benefits, give name of specialty pharmacy to use and if a PA is needed. Can be enrolled using the online portal.	Fill out the enrollment form/application, which includes the prescription, and send to Dupixent My Way and the Specialty pharmacy. The specialty pharmacy will verify benefits, whether a PA is needed, and will help with denials.
Considerations for Administration Protocols	<ul style="list-style-type: none"> <li>* Autoinjectable epinephrine</li> <li>* PFT monitoring</li> <li>* Patients must call 30 minutes prior to appointment to start mixing.</li> <li>* Wait times: Asthma - first 3 doses/ appointments there is a 2 hour wait and then 30 minutes there after.</li> <li>Urticaria - 30 minute wait after injections from first dose.</li> </ul>	<ul style="list-style-type: none"> <li>* Home self-administration</li> <li>* Avoid live vaccines; Treat patients with pre-existing helminth infections before therapy</li> </ul>
Side Effects	Injection site reactions are common; anaphylaxis	<i>Both:</i> injection site reactions are common; hypersensitivity <i>Atopic Dermatitis:</i> conjunctivitis and keratitis
Practice Notes		