

Second Generation Antipsychotic LAIs

Generic (Brand) Year approved	Indication	Dosing	Oral Supplementation	Tmax	T _{1/2}	Administration/Comments
Aripiprazole monohydrate <i>Abilify Asimtufii</i> ® 2023	▪Schizophrenia ▪ Bipolar I	720–960 mg every 8 weeks	Yes 14 days	1 to 49 days post-multiple gluteal 960 mg administrations	?	▪ Tap 10 times, shake syringe vigorously for at least 10 seconds until the medication is uniform ▪ For non-obese patients, use a 22-gauge, 1.5-inch needle. For obese patients, use a 21-gauge, 2-inch needle
Aripiprazole lauroxil <i>Aristada Initio</i> ® 2018	Schizophrenia	675 mg IM once + 30 mg aripiprazole PO once + one Aristada IM inj within 10 days	Yes (aripiprazole 30 mg PO once)	16 - 35 days (median 27 days)	15 to 18 days	▪Tap & shake syringe vigorously for at least 30 seconds prior to use ▪Avoid use in known CYP2D6 poor metabolizers ▪Aristada Initio is not interchangeable with Aristada (different PK profiles)
Aripiprazole lauroxil <i>Aristada</i> ® 2015	Schizophrenia	441, 662, 882 mg IM once monthly, or 882 mg Q6-weeks or 1064 mg Q2-months	Yes 21 days	41 days (single dose) 24.4 to 35.2 days (repeated dosing)	53.9 to 57.2 days	▪Tap 10 times, shake syringe vigorously for at least 30 seconds prior to use ▪ Inject over <u><10 seconds</u> into deltoid or gluteal muscle (441 mg), gluteal only (662 or 882 mg) ▪Use longer needles for larger amount of subcutaneous tissue overlaying the muscle
Aripiprazole <i>Abilify Maintena</i> ® 2013	▪Schizophrenia ▪ Bipolar I	300 or 400 mg IM once monthly	Yes 14 days	5 to 7 days (gluteal) 4 days (deltoid)	29.9 days (300 mg), 46.5 days (400 mg)	• Shake syringe vigorously for 20 seconds, shake vials for 30 sec. Inject <u>slowly</u> into deltoid or gluteal muscle (300 or 400 mg) • adjust dose for strong CYP2D6 or CYP3A4 inhibitors; avoid use with strong CYP3A4 inducers
Paliperidone palmitate <i>Invega Halfyera</i> ® 2021	Schizophrenia	1,092 mg or 1,560 mg once 6-monthly after treatment with monthly paliperidone for at least 4 months or 3-month paliperidone LAI for at least one 3-month cycle	No	148 to 159 days (gluteal)	29 –32 days	▪ Shake syringe VERY FAST for at least 15 seconds, rest briefly & shake again for 15 seconds ▪ Administer within 5 minutes using the needles provided in the kit ▪ Inject slowly (~30 seconds) as a single injection deep into the gluteal muscle
Paliperidone palmitate <i>Invega Trinza</i> ® 2015	Schizophrenia	273 mg, 410 mg, 546 mg, or 819 mg IM Q3-months after treatment with once monthly Invega Sustenna for at least 4 months (3.5 x the last Sustenna dose)	No	84 to 95 days (deltoid) 118 to 139 days (gluteal)	30 –33 days	▪Shake syringe vigorously for at least 15 seconds within 5 minutes prior to use ▪Administer using only the needles provided in the kit

Paliperidone palmitate Invega Sustenna® 2009	▪Schizophrenia ▪Schizoaffective Disorder	▪Initiation: 234 mg followed by 156 mg IM (deltoid) one week later ▪39 mg, 78 mg, 117 mg, 156 mg or 234 mg IM once monthly	No	13 days (median)	25–49 days	Shake syringe vigorously for at least 10 seconds and select appropriate needle -- For deltoid inj, use 1-inch 23G needle for pts < 90 kg or 1½-inch 22G needle for pts ≥ 90 kg -- For gluteal inj, use 1½-inch 22G needle regardless of weight
Paliperidone palmitate Erzofri® 2024	▪Schizophrenia ▪Schizoaffective Disorder	▪Initiation: 351 mg ▪39 mg, 78 mg, 117 mg, 156 mg or 234 mg IM once monthly	No	16-28 days (median, after a single dose. Drug release starts on day 1 & lasts up to 176 days)	27 days (median) after a single 156 mg dose	Same as Invega Sustenna
Olanzapine Zyprexa Relprevv® 2009	Schizophrenia	▪150 or 210 mg IM Q-2 weeks ▪300 or 405 mg IM Q-4 weeks	No	7 days	30 days	Reconstituted suspension may be stored at room temperature and used within 24 hours. Shake vigorously to resuspend prior to use
Risperidone Risperdal Consta® 2003	▪ Schizophrenia ▪ Bipolar I	12.5 mg, 25 mg, 37.5 mg, or 50 mg IM Q-2 weeks	Yes, 21 days after initial inj or any change in dose	21 days	3 -6 days	Administer deep IM injection into deltoid or upper outer gluteal muscle using the provided needle. Alternate between both arms or buttocks
Risperidone Perseis® 2018	Schizophrenia	90 mg or 120 mg SC once monthly	No	1st peak 4 to 6 hours (initial drug release d/t depot formation process). 2nd peak 10 to 14 days post-dose (slow release from the depot)	9-11 days	▪Constitute by coupling the liquid & powder syringes & passing the contents back & forth between the syringes. Incorrectly mixed medication could result in incorrect dosage ▪Administer using the prepackaged syringe
Risperidone Uzedly® 2023	Schizophrenia	Convert from PO to SQ: 2mg/day to 50mg monthly or 100mg bi-monthly; 3mg/day to 75mg monthly or 150mg bi-monthly; 4mg/day to 100mg monthly or 200mg bi-monthly; 5mg/day to 125mg monthly or 250mg bi-monthly	No	8 to 14 days	14 to 22 days	Administer by SQ injection in the abdomen or upper arm by a healthcare professional Let the injection reach room temperature for at least 30 minutes before use Therapeutic concentrations attained within 6 to 24 hours after the first injection
Risperidone Rykindo® 2023	▪ Schizophrenia ▪ Bipolar I	25 mg to 50 mg IM every 2 weeks	Yes (7 days)	14 days (25 mg) 17 days (50 mg)	3 to 6 days	Let kit reach room temperature for at least 30 minutes before use. Shake vigorously for at least 30 seconds after injecting diluent for uniform suspension. Resuspend by shaking vigorously for 20 to 30 seconds just before injection

Generic Brand	Active Moiety Solubilization / Vehicle	Dosage Form/Strength	Requires Adding Diluent/ inj volume	Injection Type/Sites Needle Gauge & Length	Injection Interval	Refrigerated	Pros & Cons
Aripiprazole monohydrate Abilify Asimtufii®	Aripiprazole Low soluble aripiprazole particles	Pre-filled ER injectable suspension syringes 720 mg or 960 mg every 8 weeks	No 3.2 mL (960 mg) 2.4 mL (720 mg)	IM Gluteal 22G 1.5-inch or 21G 2-inch	8 weeks	No	Pros - Low risk of metabolic & endocrine AEs - Arstada can be started using Initio 675 mg IM + 30 mg oral dose instead of 3 weeks oral bridge (+ IM maintenance dose) 4 week, 6 week, 8 week and 2 months IM option - Rates of akathisia are comparable to D2 antagonist antipsychotic LAIs - Abilify Maintena 200 mg & 160 mg dose can be obtained from 300 mg or 400 mg vials
Aripiprazole lauroxil Aristada Initio®	Aripiprazole, & dehydro-aripiprazole Low solubility particles in aqueous suspension	Pre-filled ER injectable suspension syringes 675 mg	No 2.4 mL	IM Deltoid or Gluteal 21G 1-inch 20G 1.5-inch or 2-inch	Once	No	
Aripiprazole lauroxil Aristada®	Aripiprazole, & dehydro-aripiprazole Low solubility particles in aqueous suspension	Prefilled syringe 441 mg, 662 mg, 882 mg, 1064 mg	No 3.9 mL (1064 mg) 3.2 mL (882 mg) 2.4 mL (662 mg) 1.6 mL (441 mg)	IM Deltoid (441 mg only) Gluteal (all doses) 21G 1-inch 20G 1.5-inch or 2-inch	4 weeks (all doses) 6 weeks (882 mg) 8 weeks (1064 mg)	No	
Aripiprazole Abilify Maintena®	Low solubility particles in aqueous suspension	1) 300 mg & 400 mg vials 2) 300 mg & 400 mg pre-filled dual chamber syringe	Yes, dual-chamber syringe also available 0.8 mL (160 mg) 1 mL (200 mg) 1.5 mL (300 mg) 2 mL (400 mg)	Intramuscular Deltoid or gluteal 21G 2-inch, 22G 1.5-inch, or 23G 1-inch	4 weeks	No	Cons - A subset of clients may need a D2 antagonist for optimal positive symptom control - Abilify Asimtufii® and Maintena 1M require 2 weeks of oral overlap
Paliperidone palmitate Invega Halfyera®	Schizophrenia Low solubility particles in aqueous suspension	Injectable suspension 1092 mg, 1560 mg	No 3.5 mL: 1092 mg 5 mL: 1560 mg	Intramuscular Gluteal 20G 1.5-inch	6 months	No	
Paliperidone palmitate	Paliperidone Nanoparticles in	Injectable suspension 273 mg, 410 mg, 546 mg, 819 mg	No Range 0.9 mL	Intramuscular Deltoid or gluteal	12 weeks	No	

Invega Trinza®	aqueous suspension		(273 mg) to 2.6 mL (819 mg) [312 mg/mL]	22G 1- or 1.5-inch			Offers 3-month & 6-month options for clts on Paliperidone Palmitate 1 month for at least 4 months
Paliperidone palmitate Invega Sustenna®	Paliperidone Nanoparticles in aqueous suspension	Injectable suspension 39 mg, 78 mg, 117 mg, 156 mg, 234 mg	No Range: 0.25 mL (39 mg) to 1.5 mL (234 mg) [156 mg/mL]	Intramuscular Load: Deltoid only Maintenance: Deltoid or gluteal 22G, 1.5-inch 23G, 1-inch	4 weeks	No	
Paliperidone palmitate Erzofri®	Aqueous extended-release suspension	Injectable suspension 39 mg, 78 mg, 117 mg, 156 mg, 234 mg, 351 mg	No Range: 0.25 mL (39 mg) to 2.25 mL (351 mg)	Intramuscular Load: Deltoid only Maintenance: Deltoid or gluteal 22G, 1.5-inch 23G, 1-inch	4 weeks	No	Pros - Simplified initial dosing (omits day-8 injection) may enhance adherence Cons - Invega Sustenna has the advantage of longer history of use, established safety, & potential lower cost
Olanzapine Pamoate Zyprexa Relprevv®	Olanzapine Nanoparticles in aqueous suspension	ER powder for suspension Vial Kits - 210 mg, 300 mg, 405 mg	No Range: 1.0 mL (150 mg) to 2.7 mL (405 mg) [150 mg/mL]	Intramuscular Gluteal 19G, 1.5-inch needle	2 to 4 weeks	No	Pros - Olanzapine's small efficacy edge for some clts, - Can be loaded, max dose equals 20 mg/day PO olanzapine Cons - Metabolic AEs, post-injection syndrome causing delirium/sedation requires 3-hour observation
Risperidone Risperdal Consta®	Risperidone & Paliperidone Microsphere matrix in aqueous suspension	Vial kits: 12.5 mg, 25 mg, 37.5 mg, 50 mg	Yes ~ 2 mL	Intramuscular Deltoid or gluteal 20G; 2-inch 21G; 1-inch	2 weeks	Yes	Pros - Well established (risperidone approved in 1993) - Subcutaneous LAIs eliminate the need for oral overlap - Perseris and Uzedy can be administered in the upper arm 4 week & 8 week SQ inj option - Uzedy dose range corresponds to 2, 3, 4, and 5 mg/day oral risperidone Cons
Risperidone Perseris®	Risperidone & Paliperidone Suspended in polymer solution	Syringe kits: 90mg, 120 mg	Yes 0.6 mL (90 mg) 0.8 mL (120 mg)	Subcutaneous Abdomen or back of the upper arm 18G; 5/8-inch	4 weeks	Yes	

Risperidone Uzedly®	Risperidone & Paliperidone	Suspension Prefilled Syringe	No Range: 0.14 mL (50 mg) to 0.7 mL (250 mg)	Subcutaneous Abdomen or upper arm	4 to 8 weeks	Yes	- Metabolic & endocrine AEs - Risperdal Consta require biweekly injections, 21 days oral overlap and unfavorable PK - Perseris requires extensive mixing and comes in 90mg and 120mg doses, equivalent to 3mg/day and 4mg/day of oral risperidone respectively. Not suitable for doses outside 3-4mg/day range
	MedinCell's SteadyTeq copolymer technology	50 mg, 75 mg, 100 mg, 125 mg, 150 mg, 200 mg, 250 mg					
Risperidone Rykindo®	Risperidone & Paliperidone	Kit with vial & pre-filled diluent in a syringe 12.5 mg, 25 mg, 37.5 mg, & 50 mg	Yes ~2 mL	Intramuscular Gluteal 20G; 2-inch	2 weeks	Yes	