

A Comprehensive Guide to LAI Antipsychotics

Table 1. Long-Acting Injectable Antipsychotics

Product	Frequency	Administration	Loading Dose	Dosing	Oral Daily Dose to LAI Conversion	Overlap With Oral Med Needed?	Storage	Clinical Pearls
First-Generation LAIs								
Fluphenazine decanoate	2-4 wk	Technique: Z-track Location: gluteal or lateral thigh	N/A	Initial dose: 12.5-25 mg IM/SQ Dose range: 12.5-100 mg Available dose strengths: 25 mg/mL (variable dose) Max dose: 100 mg/2 wk	12.5 mg decanoate every 2-4 wk ≈ 10 mg oral daily	Decreasing dose by half after first injection, discontinue oral after second injection	Room temp Protect from light	• In sesame oil, be aware of allergies • May be drawn up with larger gauge needle, then administered with smaller gauge for patient comfort • Indication: schizophrenia
Haloperidol decanoate	4 wk	Technique: Z-track Location: gluteal	20x oral daily dose Alternative: 10x oral daily dose given weekly for 4 wk	Initial dose: 10-15x current oral daily dose Dose range: 20-450 mg Available dose strengths: 50 mg/mL, 100 mg/mL (variable dose) Max dose: 100 mg/first injection; 450 mg/4 wk	10-20x previous daily oral dose	If not loading, taper gradually over a 1-mo period beginning 1-2 mo after the first injection	Room temp Protect from light	• In sesame oil, be aware of allergies • May be drawn up with larger gauge needle, then administered with smaller gauge for patient comfort • Indication: schizophrenia
Second-Generation LAIs								
Aripiprazole Products								
Abilify Maintena®	4 wk	Technique: standard Location: deltoid or gluteal	US label: no Canadian label: 2 separate injections of 400 mg (different sites) on the same day along with one 20 mg oral aripiprazole	Initial dose: 400 mg Dose range: 300-400 mg Available dose strengths: 300 mg, 400 mg Max dose: 400 mg/4wk	15 mg = 300 mg IM 20 mg = 400 mg IM	Yes, for 14 days after first injection (unless utilizing a loading dose)	Room temp	• Inject slowly • Must shake dual chamber syringe vertically for 20 seconds; must shake vial for 30 seconds • Indication: schizophrenia, bipolar I maintenance

Product	Frequency	Administration	Loading Dose	Dosing	Oral Daily Dose to LAI Conversion	Overlap With Oral Med Needed?	Storage	Clinical Pearls
Aristada®	4 wk (441, 662, 882 mg) 6 wk (882 mg only) 8 wk (1064 mg only)	Technique: standard Must tap 10x, then shake vigorously for 30 seconds Location: deltoid (only 441 mg) or gluteal (441, 662, 882, or 1064 mg)	See information on Aristada Initio®	Usual starting dose: 441 mg or 662 mg monthly OR 882 mg every 6 wk OR 1064 mg every 2 mo Available dose strengths: 441 mg, 662 mg, 882 mg, 1064 mg Max dose: 882 mg/4 wk	10 mg/day = 441 mg/mo 15 mg/day = 662 mg/mo 15 mg/day = 882 mg every 6 wk 15 mg/day = 1064 mg every 2 mo ≥20 mg/day = 882 mg/mo	Yes, for 21 days after first injection if Aristada Initio® is not used	Room temp	• Rapidly inject right after shaking to avoid needle clogs • Indication: schizophrenia
Aristada Initio®	Single loading dose only	Technique: standard Must tap 10x, then shake vigorously for 30 seconds Rapidly inject right after shaking Location: deltoid or gluteal	675 mg	This is a loading dose to be used with Aristada® only Give with aripiprazole 30 mg oral x1 dose Administer Aristada® maintenance injection within next 10 days Max dose: 675 mg	N/A	Should be given with 1 time dose of oral aripiprazole 30 mg	Room temp	• Rapidly inject right after shaking to avoid needle clogs • Maintenance dose of Aristada® may be administered on the same day as Initio® in separate muscles • Indication: schizophrenia
Abilify Asimtufii®	2 mo	Technique: standard Location: gluteal	N/A	Initial and maintenance dose: 960 mg every 2 mo; may decrease to 720 mg every 2 mo, based on response Dose range: 720-960 mg Available dose strengths: 720 mg, 960 mg Max dose: 960 mg/8 wk	10-20 mg = 960 mg IM	Yes, for 14 days after first injection if not converting from Abilify Maintena®	Room temp	• Tap syringe on hand at least 10x, then shake syringe for at least 10 seconds • Indication: schizophrenia, bipolar I maintenance

Product	Frequency	Administration	Loading Dose	Dosing	Oral Daily Dose to LAI Conversion	Overlap With Oral Med Needed?	Storage	Clinical Pearls
Olanzapine Products								
Zyprexa Relprev®	2-4 wk	Technique: standard Aspirate syringe to ensure no blood and inject slowly Location: gluteal only	N/A	Usual starting dose: 150 mg or 210 mg or 300 mg every 2 wk; or 300 mg or 405 mg every 4 wk Dose range: 150-405 mg Available dose strengths: 210 mg, 300 mg, 405 mg Max dose: 300 mg/2 wk	10 mg = 210 mg every 2 wk or 405 mg every 4 wk for first 8 wk, then 150 mg every 2 wk or 300 mg every 4 wk 15 mg = 300 mg every 2 wk for first 8 wk, then 210 mg every 2 wk or 405 mg every 4 wk 20 mg = 300 mg every 2 wk	No	Room temp	- REMS Program: restricted availability - Patients must be observed for 3 hr after injection because of risk of post injection delirium/sedation - Indication: schizophrenia
Paliperidone Palmitate Products								
Invega Sustenna®	4 wk	Technique: standard Location: loading doses, deltoid only; maintenance doses, deltoid or gluteal	234 mg on Day 1, 156 mg 7 days (± 4 days) later (deltoid)	Target dose: 117 mg every mo Available dose strengths: 39 mg, 78 mg, 117 mg, 156 mg, 234 mg Max dose: 234 mg/4 wk	3 mg = 39-78 mg IM 6 mg = 117 mg IM 9 mg = 156 mg IM 12 mg = 234 mg IM	No	Room temp	- Must shake for 10 seconds - Indication: schizophrenia, schizoaffective disorder
Invega Trinza®	12 wk (3 mo)	Technique: standard Location: deltoid or gluteal	No	Target dose: based on Invega Sustenna® dose Available dose strengths: 273 mg, 410 mg, 546 mg, 819 mg Max dose: 819 mg/12 wk	Conversion from Invega Sustenna® to Invega Hafyera®: 78 mg = 273 mg 117 mg = 410 mg 156 mg = 546 mg 234 mg = 819 mg	No	Room temp	- Must have Invega Sustenna® ≥4 mo with 2 most recent injections being the same dose prior to Trinza® - Must shake for 15 seconds - Inject slowly - Indication: schizophrenia
Invega Hafyera®	6 mo	Technique: standard Location: gluteal	No	Target dose: based on Invega Sustenna® or Trinza® dose Available dose strengths: 1092 mg, 1560 mg Max dose: 1560 mg/6 mo	Conversion from Invega Sustenna® to Invega Hafyera®: 156 mg = 1092 mg 234 mg = 1560 mg Conversion from Invega Trinza® to Invega Hafyera®: 546 mg = 1092 mg 819 mg = 1560 mg	No	Room temp	- Must have Invega Sustenna® ≥4 mo with last 2 doses of 156 or 234 mg OR Invega Trinza® 1 or more 3-mo cycle at doses of 546 or 819 mg - Shake syringe in very fast up and down motion for 15 seconds, rest a few seconds, then repeat - Indication: schizophrenia

Product	Frequency	Administration	Loading Dose	Dosing	Oral Daily Dose to LAI Conversion	Overlap With Oral Med Needed?	Storage	Clinical Pearls
Risperidone Products								
Risperdal Consta®	2 wk	Technique: standard Location: deltoid or gluteal	No	Initial dose: 25 mg every 2 wk Target dose: 25-50 mg every 2 wk Available dose strengths: 12.5 mg, 25 mg, 37.5 mg, 50 mg Max dose: 50 mg/2 wk	1 mg = 12.5 mg IM 2-3 mg = 25 mg IM 3-5 mg = 37.5 mg IM ≥5 mg = 50 mg IM	Yes, for 3 wk after first injection	Fridge Protect from light Allow to come to room temp prior to administration	• Must shake for 10 seconds • Give immediately; otherwise shake again prior to administration • Give within 6 hr of reconstitution • Indication: schizophrenia, bipolar I maintenance
Perseris®	4 wk	Technique: subcutaneous Location: abdomen or back of the upper arm	N/A	Initial/ target dose: 90 or 120 mg every mo Available dose strengths: 90 mg, 120 mg Max dose: 120 mg/4 wk	3 mg = 90 mg SQ 4 mg = 120 mg SQ	No	Fridge Allow to come to room temp prior to administration	• Reconstitute by transferring contents between syringes 5 times slowly, then mix rapidly for 55 cycles; inject slow and steady • Indication: schizophrenia
Rykindo®	2 wk	Technique: standard Location: gluteal	N/A	Initial dose: 25 mg every 2 wk Target dose: 25-50 mg every 2 wk Available dose strengths: 12.5 mg, 25 mg, 37.5 mg, 50 mg Max dose: 50 mg/2 wk	N/A	Yes, for 7 days (unless transitioning from Risperdal Consta®)	Fridge Allow to come to room temp prior to administration	• Must shake for 30 seconds • Give immediately; otherwise shake again prior to administration • Indication: schizophrenia, bipolar I maintenance
Uzedy®	4 or 8 wk	Technique: subcutaneous Location: abdomen or back of the upper arm	N/A	Initial dose: based on oral dose of risperidone Available dose strengths: 50 mg, 75 mg, 100 mg, 125 mg, 150 mg, 200 mg, 250 mg Max dose: 125 mg/4 wk or 250 mg/8 wk	2 mg = 50 mg every 4 wk or 100 mg every 2 mo 3 mg = 75 mg every 4 wk or 150 mg every 2 mo 4 mg = 100 mg every 4 wk or 200 mg every 2 mo 5 mg = 125 mg every 4 wk or 200 mg every 2 mo	No	Fridge Protect from light Allow to come to room temp prior to administration	• Allow to come to room temp prior to administration • Indication: schizophrenia
Risvan®	Monthly	Technique: standard Location: deltoid or gluteal	N/A	Initial dose: based on oral dose of risperidone Available dose strengths: 75 mg, 100 mg Max dose: 100 mg/month	3 mg = 75 mg IM 4 mg = 100 mg IM	No	Room temp	• Mix by pushing plungers fast and alternately for 100 pushes • Must be given within 15 min after reconstitution • Indication: schizophrenia

Table 2: Early and Late Administration of SGA LAIs

Product	Minimum Injection Interval	Missed Doses
First-Generation LAIs		
Fluphenazine decanoate	2 wk	At steady state • If <6 wk from last injection, administer as soon as possible Not at steady state, or 6-24 wk since last dose • Administer next dose as soon as possible, with oral overlap if recurrence of symptoms >24 wk since last dose • Stabilize on oral antipsychotic and reinstitute when able
Haloperidol decanoate	1 wk (if loading)	At steady state • If <6 wk from last injection, administer as soon as possible Not at steady state, or 6-12 wk since last dose • Administer next dose as soon as possible, with oral overlap if recurrence of symptoms ≥13 wk since last injection • Stabilize on oral antipsychotic and reinstitute when able
Second-Generation LAIs		
Aripiprazole Products		
Abilify Maintena®	No sooner than 26 days after previous injection	Second or third dose is missed • If >4 wk but <5 wk since last injection, administer as soon as possible • >5 wk since last injection, restart oral aripiprazole for 14 days If fourth or additional doses are missed • If >4 wk but <6 wk since last injection, administer as soon as possible • >6 wk since last injection, restart oral aripiprazole for 14 days
Aristada®	If adjusting dose, do not administer <14 days after previous injection	Administer as soon as possible if time since last injection is • ≤6 wk on 441 mg, ≤8 wk on 662 mg or 882 mg, ≤10 wk on 1064 mg Supplement with single dose Aristada Initio® or 7 days of oral aripiprazole if time since last injection is • 6-7 wk on 441 mg, 8-12 wk on 662 mg or 882 mg, 10-12 wk on 1064 mg Reinitiate if time since last injection is • >7 wk on 441 mg, >12 wk on 662 mg, 882 mg, or 1064 mg
Aristada Initio®	Single loading dose	Requires oral supplementation if not utilizing as a load
Abilify Asimtufii®	Injection may be given up to 2 wk before or after the 2-mo time point	If >8 wk and <14 wk, administer as soon as possible If >14 wk, restart oral aripiprazole for 14 days
Olanzapine Products		
Zyprexa Relprevv®	2 wk	No information available

Product	Minimum Injection Interval	Missed Doses
Paliperidone Products		
Invega Sustenna®	Monthly injection may be given within +/- 7-day window	Missed second initiation dose • If <4 wk, administer in deltoid as soon as possible then administer maintenance dose 5 wk after first injection • If 4-7 wk, administer 156 mg as soon as possible followed by a second 156-mg dose 1 wk later (both in deltoid) • If > 7 wk, restart initiation dosing Missed maintenance dose • If 4-6 wk, administer maintenance dose as soon as possible • If >6 wk to <6 mo, administer previous maintenance dose as soon as possible followed by a second dose 1 wk later (both in deltoid). If previous dose was 234 mg, give two 156-mg injections 1 wk apart • If > 6 mo, restart initiation dosing
Invega Trinza®	Injection may be given up to 2 wk before or after the 3-mo time point	If 3.5-4 mo since last injection, administer as soon as possible If 4-9 mo, then must give 2 injections of Invega Sustenna® 1 wk apart before resuming Trinza® 1 mo later. For patients receiving Trinza® • 273 mg: give Sustenna® 78 mg x 2 injections (1 wk apart) • 410 mg: give Sustenna® 117 mg x 2 injections (1 wk apart) • 546 mg: give Sustenna® 156 mg x 2 injections (1 wk apart) • 819 mg: give Sustenna® 156 mg x 2 injections (1 wk apart) If >9 mo, reinitiate with Invega Sustenna® (including 4 monthly treatments) before resuming Trinza®
Invega Hafyera®	Injection may be given up to 2 wk before or 2-wk after the 6-mo time point	If >6 mo + 3 wk but <8 mo, give 1-time corresponding Invega Sustenna® dose (156 mg for 1092 mg or 234 mg for 1560 mg), then resume Invega Hafyera® 1 mo later If 8-11 mo, give 2 corresponding Invega Sustenna® doses 1 wk apart (156 mg for 1092 mg or 234 mg for 1560 mg), then resume Invega Hafyera® 1 mo later If >11 mo, reinitiate with Invega Sustenna® (including 4 monthly treatments) before resuming Hafyera®
Risperidone Products		
Risperdal Consta®	2 wk	At steady state • If 3 to ≤6 wk, give injection as soon as possible • If >6 wk, give next injection plus oral supplementation for 3 wk If steady state not achieved, reinitiate as soon as possible, with oral supplementation for 3 wk
Perseris®	4 wk	Administer missed dose as soon as possible
Rykindo®	2 wk	Administer missed dose as soon as possible and supplement with oral risperidone as needed
Uzedy®	4 wk	Administer missed dose as soon as possible
Risvan®	Do not administer more than 1 injection per mo	Administer missed dose as soon as possible

References

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