

Fact Sheet: Comparison of Long-Acting Injectable Antipsychotics

DRUG	VEHICLE	DOSAGE	T _{MAX} (DAYS)	T _{1/2} (DAYS)	LOADABLE
Fluphenazine decanoate	sesame oil	12.5 - 100 mg/2 weeks	0.3 - 1.5	14	yes
Haloperidol decanoate	sesame oil	25 - 400 mg/4 weeks	3 - 9	21	yes
Risperidone microspheres (Risperdal Consta®)	water	12.5 - 50 mg/2 weeks	21	3 - 6	no (21 - 28 days PO overlap)
Risperidone microspheres (Rykindo®)	water	25 - 50 mg/2 weeks	14 - 17	3 - 6	no (7 days PO overlap)
Risperidone subcutaneous (Perseris®)	water	90 - 120 mg/4 weeks max: 120mg/4 weeks	7 - 8	15 - 21	n/a (not necessary)
Risperidone subcutaneous (Uzedy®)	water	50 - 125 mg/4 weeks or 100 - 250 mg/8 weeks max: 125 mg/4 weeks or 250 mg/8 weeks	8 - 14	15 - 21	n/a (not necessary)
Aripiprazole monohydrate (Abilify Maintena®)	water	300 - 400 mg/4 weeks max: 400 mg/4 weeks	6.5 - 7.1	29.9 - 46.5	yes
Aripiprazole monohydrate (2-month - Asimtufii®)	water	720 - 960 mg/4 weeks max: 960 mg/4 weeks	28	???	no (14 days PO overlap)
Aripiprazole lauroxil (Aristada®)	water	441, 662, 882 mg/4 weeks; 882 mg/6 weeks; 1064 mg/8 weeks max: 882 mg/4 weeks	41 (single dose) 24.4 - 35.2 (repeated dosing)	53.9 - 57.2	No (start AL 675 mg IM + 30 mg PO OR 21 days oral overlap)
Aripiprazole lauroxil nanocrystal (Aristada Initio®)	water	675 mg once	27 (range: 16 - 35)	15 - 18 (single dose)	-
Paliperidone palmitate / monthly (Invega Sustenna®)	water	39 - 234 mg/4 weeks max: 234 mg/4 weeks	13	25 - 49	yes

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DRUG	VEHICLE	DOSAGE	T _{MAX} (DAYS)	T _{1/2} (DAYS)	LOADABLE
Paliperidone palmitate / 3-month (Invega Trinza®)	water	273 - 819 mg/4 weeks max: 819 mg/4 weeks	84 - 95 (deltoid) 118 - 139 (gluteal)	30 - 33	no
Paliperidone palmitate / monthly (Invega Hafyera®)	water	1092 - 1560 mg/4 weeks max: 1560 mg/4 weeks	148 - 159 (gluteal)	29-32	no

Table 1. Kinetic properties for the depot antipsychotics typically used in DSH. (adapted from Meyer JM Converting oral to long-acting injectible antipsychotics: a guide for the perplexed. CNS Spectrums (2017), 22, 17-27.)

DRUG	VEHICLE	DOSAGE	T _{MAX} (DAYS)	T _{1/2} (DAYS)	LOADABLE
Olanzapine pamoate (Zyprexa Relprevv®)	water	150 - 300 mg/2 weeks 300 - 405 mg/4 weeks max: 300 mg/2 weeks	7	30	yes
Paliperidone palmitate (Erzofri®)	water	39 - 351 mg/4 weeks max: 234 mg/2 weeks	3-9	21	yes

Table 2. Olanzapine pamoate and paliperidone palmitate (Erzofri)

Dopamine antagonist LAIs which should be loaded:

- haloperidol decanoate
- fluphenazine decanoate
- olanzapine pamoate
 - Approximately 2% of patients in the clinical trials for Relprevv® experienced severe sedation often requiring hospitalization within 30 minutes to 5 hours after receiving the injection.
 - The package insert outlines a mandatory 3-hr observation period for post-injection sedation or delirium.
 - The risk for death associated with Relprevv® is 1 in 1,000.
 - Olanzapine pamoate is not available within the California Department of State Hospitals.
- paliperidone palmitate (Invega Sustenna® and Erzofri®)
 - Aside from an initial loading dose of 351 mg IM into the deltoid, maintenance dosing of Erzofri® is the same as that for Invega Sustenna®.

The initial dosage of ERZOFRI is 351 mg on treatment Day 1 administered in the deltoid muscle. Following the initial dose, monthly dose can be administered in either the deltoid or gluteal muscle [see Clinical Pharmacology (12.3)].

Table 1: Dosage Recommendations for ERZOFRI

Indication	Initial Dose (deltoid) Day 1	Monthly Dosage* (deltoid or gluteal)	Maximum Monthly Dosage
Schizophrenia	351 mg	39 mg to 234 mg ^b	234 mg
Schizoaffective disorder	351 mg	78 mg to 234 mg ^c	234 mg

Dopamine partial agonist LAIs which can be loaded:

- aripiprazole monohydrate (Abilify Maintena®) – for loading and maintenance
- aripiprazole lauroxil nanocrystal (Aristada Initio®) – for loading only as a single dose of 675 mg (**NOT** for repeated dosing)

Comparison of D₂-blocking LAIs: Consta®/Sustenna® vs. Haldol/Prolixin Decanoate

Risperdal Consta®/Invega Sustenna®	Haldol decanoate/Prolixin decanoate
▪ <u>Pros</u> • Saline-based (less painful, less likely to cause sterile abscess at injection site) ▪ <u>Cons</u> • maximum LAI dose is <i>half</i> of max oral dose • Inadequate D₂ blockade → decompensation • P-glycoprotein pump (PGP) substrate • ↑ prolactin levels → problems associated with hyperprolactinemia (galactorrhea, etc.) • costs \$\$\$	▪ <u>Cons</u> • Sesame oil base (more painful and may cause sterile abscess at injection site) ▪ <u>Pros</u> • LAI dose can achieve oral dose strength • greater opportunity for D₂ blockade → better control of positive psychotic symptoms • Risk for hyperprolactinemia is less than Consta / Invega Sustenna • costs \$

References

1. DSH Psychotropic Medication Operational Procedures, Chapter 9. Long-Acting Injectable Antipsychotics.
2. Meyer JM Converting oral to long-acting injectable antipsychotics: a guide for the perplexed. CNS Spectrums (2017), 22, 17–27.
3. Meyer JM Stahl's Handbooks: The Clinical Use of Antipsychotic Plasma Levels; <https://doi.org/10.1017/9781009002103>