

34 - Site of administration of intramuscular injections

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954 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 14 Site of administration of intramuscular injections Table 14.6 gives the sites of administration formally permitted in the individual product's EU licence. Other routes and sites may be possible but pharmacokinetic analysis of administration via these sites is generally not available. Table 14.6 Sites of administration of intramuscular injections. Antipsychotic generic name and formulation Licensed site(s) of administration Typical antipsychotic (FGA) depots Bromperidol decanoate in sesame oil (available in Belgium, Germany, Italy, Luxembourg and the Netherlands^{1,2}) Deep intramuscular injection into the gluteal muscle. SPCs in some countries recommend to alternate injections into the left and right sides to prevent pain at the injection site.³ Flupentixol decanoate in thin vegetable oil derived from coconuts Deep intramuscular injection into the upper outer buttock (dorsogluteal) or lateral thigh (vastus lateralis).⁴ As with all oil-based injections it is important to ensure, by aspiration before injection, that inadvertent intravascular entry does not occur.⁵ This probably applies to dorsogluteal injections only; for all other sites where there are no major blood vessels close to the injection site, this is unnecessary.⁴ Fluphenazine decanoate in sesame oil Deep intramuscular injection into the gluteal region.⁴ Has also been administered into the lateral surface of the thigh muscle but this is unlicensed. Administration into the deltoid is not recommended by manufacturer.⁶ In the USA, licensed to be used 'intramuscularly or subcutaneously'. The site of administration is not specified. Drug leakage appears to be lower after SC injection than after intramuscular administration.⁷ Fluspirilene in vegetable oil⁸ (available in some EU countries, Canada, Argentina and Israel⁹) Deep intramuscular injection into the gluteal muscle (intragluteal). Because of its microcrystalline form, irritation and inflammation symptoms may occur at the injection site. Manufacturer recommends to alternate between left and right gluteal muscles.^{3,10} Haloperidol decanoate in sesame oil Deep intramuscular injection into the gluteal region.⁴ It is recommended to alternate between the two gluteal muscles.¹¹ As the administration of volumes greater than 3mL is uncomfortable for the patient, such large volumes are not recommended.^{11,12} Can also be administered into the deltoid muscle according to the manufacturer.¹³ Although this is an unlicensed use, one trial suggests it is safe and effective.¹⁴ Perphenazine decanoate in sesame oil (used in the Nordic countries, Belgium, Portugal and the Netherlands¹⁵) Deep intramuscular

injection.^{15,16} No other information available.

Table 14.6 (Continued) Antipsychotic generic name and formulation Licensed site(s) of administration Perphenazine enanthate in sesame oil (in clinical use in the Nordic countries, Belgium, Portugal and the Netherlands)¹⁵ Pipotiazine palmitate in sesame oil⁴ (variable availability) Zuclopenthixol decanoate in thin vegetable oil derived from coconuts Atypical antipsychotic (SGA) depots Gluteal muscle administration⁴ Aripiprazole Prefilled syringe for prolonged-release suspension Aripiprazole lauroxil Prefilled syringe for extended-release suspension Aripiprazole lauroxil nanocrystal dispersion Prefilled syringe for extended-release suspension Olanzapine pamoate monohydrate Powder and vehicle for prolonged-release suspension Paliperidone palmitate 1-monthly Prolonged-release suspension for injection every month Prescribing psychotropics Deep intramuscular injection into the gluteal region.^{15,17} Administration should be by deep intramuscular injection into the gluteal region.¹⁸ Deep intramuscular injection into the upper outer buttock (dorsogluteal) or lateral thigh (vastus lateralis).⁴ As with all oil-based injections it is important to ensure, by aspiration before injection, that inadvertent intravascular entry does not occur.¹⁹ Gluteal injections should be alternated between the two gluteal muscles. Deltoid muscle administration^{4,20} Deltoid injections should be alternated between the two deltoid muscles.²⁰ The powder and vehicle vials and the prefilled syringe are for single use only.⁴ Intramuscular administration into the deltoid or gluteal (441mg dose only) muscle.^{4,21} CHAPTER 14 Intramuscular injection into the deltoid or gluteal muscle.²² Not intended for repeat dosing. Given as a single dose to initiate treatment with aripiprazole lauroxil.²² Olanzapine pamoate monohydrate should only be administered by deep intramuscular gluteal injection by a healthcare professional trained in the appropriate injection technique and in locations where post-injection observation and access to appropriate medical care in the case of overdose can be assured.²³ Injected slowly, deep into the deltoid or dorsogluteal muscle (the two initial loading doses should be administered in the deltoid muscle so as to attain therapeutic concentrations rapidly).^{4,24} Following the second initiation dose, monthly maintenance doses can be administered in either the deltoid or gluteal muscle. Administration should be in a single injection. The dose should not be given in divided injections.²⁴ (Continued)

956 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 14 Table 14.6 (Continued) Antipsychotic generic name and formulation Licensed site(s) of administration Paliperidone palmitate 3-monthly Prolonged-release suspension for injection every 3 months Deltoid muscle administration²⁵ The specified needle for administration of Trevicta into the deltoid muscle is determined by the patient's weight (see manufacturer's advice). It should be administered into the centre of the deltoid muscle. Deltoid injections should be alternated between the two deltoid muscles. Gluteal muscle administration²⁵ To be administered into the upper outer quadrant of the gluteal muscle. Gluteal injections should be alternated between the two gluteal muscles. Paliperidone palmitate 6-monthly Prolonged-release suspension for injection every 6 months Byanli is for gluteal intramuscular use only. It must not be administered by any other route. Each injection must be administered only by a healthcare professional giving the full dose in a single injection. It should be injected slowly, deep into the upper outer quadrant of the gluteal muscle. A switch between the two gluteal muscles should be considered for future injections in the event of injection site discomfort. Needles from the 3-monthly or 1-monthly paliperidone palmitate injectable pack or other commercially available needles must not be used when administering Byanli.²⁶ Risperidone microspheres (Consta) Powder and vehicle for prolonged-release suspension Following reconstitution, administer via deep intramuscular deltoid or gluteal

injection.²⁷ Risperidone ISM (Okedi) Powder and solvent for extended-release suspension After reconstitution, administer by deep intramuscular deltoid or gluteal injection.²⁸ Risperidone 2--weekly injection (Rykindo) Prefilled syringe and powder vial for prolonged-release suspension After reconstitution, administer via intramuscular injection into the gluteal muscle.²⁹ Risperidone subcutaneous long-acting injections (Perseris [RBP-7000], Uzedy [TV-46000]) Extended-release suspension Subcutaneous administration in the abdomen or upper arm.^{30,31} Prior to administration of Perseris (RBP-7000), the liquid and powder syringes need to be mixed by passing the contents back and forth between the syringes. Intramuscular injections for rapid tranquilisation Aripiprazole Solution for injection To enhance absorption and minimise variability, injection into the deltoid or deep within the gluteus maximus muscle, avoiding adipose regions, is recommended.³² Haloperidol Solution for injection Intramuscular administration.³³ Preferably, the gluteal muscle is selected when the dosage volume is high. The deltoid muscle is preferred for low doses of the injection. However, there is no information on the dosage limit for these specific muscle groups. Choice of site is at the discretion of the prescriber according to the manufacturer.³⁴

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