

Learning Objectives

1. 了解常用注射法的定义及目的。
Intradermic Injection 皮内注射法,
Hypodermic Injection 皮下注射法,
Intramuscular Injection 肌内注射法.
2. 掌握常用注射法的操作流程及注意事项 ▲★
3. 比较常用注射法的异同点。 ▲

目录

- 一、概念
- 二、目的
- 三、ID、H、IM的操作流程
- 四、操作中的重点难点
- 五、注意事项

一、Concepts概念:

Intradermic/intradermal Injection

皮内注射法(I.D.)

Hypodermic(Subcutaneous) Injection

皮下注射法(H)

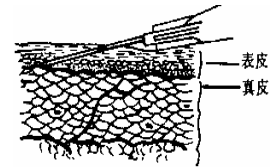
Intramuscular Injection

肌内注射法(I.M.)

二. Purposes

1. ID:

- > for allergy testing (过敏试验)
- > for vaccination (接种疫苗:卡介苗 ...)
- > for the first step of local anaesthesia(局麻)

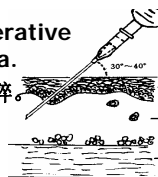


二. Purposes

2. H:

- When the medication is not suitable(适合) for oral route and its absorption(吸收) is somewhat slower than with intramuscular injection, such as insulin胰岛素 and heparin肝素.
- Be used for vaccination, preoperative medication and local anesthesia.

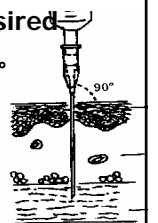
用于预防接种、手术前用药及局部麻醉。



二. Purposes

2. IM:

- When the medication is not suitable for oral or intravenous route, 用于不宜口服或静脉注射的药物,
- and when more rapid absorption than subcutaneous injection is desired 且要求比皮下注射发挥更快药效时。



三.ID、H、IM注射法的操作流程

- 一查
- 1.准备** → 查阅、评估、洗手戴口罩、备物
 - 2.吸药** → 吸药排气、查对、划本/签名
 - 3.选部位** → 核对1、评估解释、选部位、摆体位。
 - 4.消毒皮肤** → D>5cm严密、公转自转对侧提起。
- 二查
- ID、H、IM
- 5.注射** → 核对2、排气、进针、固定、回抽、注药
- 三查
- 6.拔针** → 干棉签按压，拔针，再次核对3
 - 7.整理** → 整理病床单位及用物、观察药物作用

看录像比较▲

| 类别 | 1.目的/特征 | 2.注射器 | 3.注射部位 | 4.皮肤消毒 | 5.进针角度、深度 | 6.回抽 | 7.拔针要点 |
|------|---------|-------|--------|--------|-----------|------|--------|
| 皮内ID | | | | | | | |
| 皮下H | | | | | | | |
| 肌内IM | | | | | | | |

ID我校与录像的差异:

- 门诊病人：注射室抽吸药液后立即给病人注射。
- 住院病人：一般在治疗室抽吸药液，再到病人床边执行注射。
- 抽吸药液方法见相应的差异说明。
- 需两人床边查对。
- 锐器与非锐器应分开放置，于操作时或操作后分别放入锐器箱或医疗垃圾袋。
- 如果是青霉素皮试，操作前做好急救物品的准备，操作后应将急救盒放床旁桌上，直至观察结果为阴性。

IH我校与录像的差异:

- 门诊病人：注射室抽吸药液后立即给病人注射。
- 住院病人：一般在治疗室抽吸药液，再到病人床边执行注射。
- 抽吸药液方法见相应的差异说明。
- 需两人床边查对。
- 皮肤消毒用一支安尔碘。
- 锐器与非锐器应分开放置，于操作时或操作后分别放入锐器箱或医疗垃圾袋。

IM我校与录像的差异:

- 门诊病人：注射室抽吸药液后立即给病人注射。
- 住院病人：一般在治疗室抽吸药液，再到病人床边执行注射。
- 抽吸药液方法见相应的差异说明。
- 需两人床边查对。
- 皮肤消毒用一支安尔碘。
- 锐器与非锐器应分开放置，于操作时或操作后分别放入锐器箱或医疗垃圾袋。
- 勿在病人身上画线定位。
- 注射中注意观察病人，了解病人的反应。

四、操作中的重点难点:

一) Intradermal injection



二) Subcutaneous injection



三) IM操作中的重点难点:



五、注意事项 一) ID

1. Follow the checking procedure; use aseptic techniques, safety injection techniques and standard precautions strictly.

严格执行查对制度、无菌技术、安全注射和标准预防的操作原则。

2. Prepare well before penicillin allergy testing.

做好青霉素过敏试验前的准备。

五、注意事项 一) ID

3. Do not clean the injection site with an iodine swab. If the patient is allergic to alcohol, select other colorless skin disinfectants.

忌用碘酊消毒注射部位。如果患者对乙醇过敏，可选用其他无颜色的皮肤消毒剂。

4. Assist patients who are too weak or too anxious to supine position to avoid dizziness.

协助体质虚弱或情绪紧张的患者平卧以防晕针。

五、注意事项 一) ID

5. After the injection, remind the patient not to leave his/her room or scratch the small bleb, and to notify doctor/nurse immediately if there are any unusual effects.

注射后，提醒患者不可离开病房，不可搔抓皮丘，如有不适立即通知医生/护士。

五、注意事项 二) H

1. Follow the checking procedure; use aseptic techniques, safety injection techniques and standard precautions strictly.

严格执行查对制度、无菌技术、安全注射和标准预防的操作原则。

2. Select an appropriate injection site free of hardness, inflammation, lesions or scars.

选择合适的注射部位，避免在有硬结、炎症、受损或疤痕处进针。

五、注意事项 二) H

3.If the patient must receive frequent subcutaneous injections, injection sites need to be alternated(交替) in an orderly fashion. If necessary, instruct the patient to massage(按摩) or use warm compress (热敷) on the site after the injection to prevent tissue fibrosis(纤维化). But these methods are contraindicated (禁忌) for insulin(胰岛素) injections because they can cause faster absorption(吸收). They are also contraindicated (禁忌) for heparin(肝素) injections because they can cause subcutaneous bleeding(出血).

五、注意事项 二) H

4.Select appropriate depth and site to insert according to the patient's nutritional(营养) status, do not insert medications into muscle. For thinner patients, pinch up(捏起) the skin and insert the needle at an angle of not more than 45°. For special medications such as Low-Molecular-Weight Heparin Calcium(低分子肝素钙注射液) injection, pinch up (捏起) the skin and insert the needle at a 90° angle on the abdominal wall(腹壁).

五、注意事项 二) H

5.Prepare food for patients before insulin(胰岛素) injection and remind patients to eat 30 minutes after administering injection (or follow medication directions).

6.The insulin-dependent(胰岛素依赖型) patients may have to learn how to self-administer injections. It may be necessary to teach patients the aseptic(无菌) principles, basic pharmacology药理学知识of insulin, selection of sites and alternating injection sites and injection techniques.

五、注意事项 二) H

7.After the injection, **avoid** recapping(回套)the needle. Discard(丢弃) the needle-syringe unit into the sharps container immediately to avoid needlestick injuries(针刺伤) and contamination(污染). Make sure the injection site has no bleeding before you leave the patient.

五、注意事项 二) IM

1.Follow the checking procedure; use aseptic techniques, safety injection techniques and standard precautions strictly.

严格执行查对制度、无菌技术、安全注射和标准预防的操作原则。

2.Select an appropriate injection site. Avoid areas of hardness, infection, lesions or scars.

选择合适的注射部位，避免在有硬结、炎症、受损或疤痕处进针。

五、注意事项 二) IM

3.Select correct injection site to avoid injuring underlying nerves(神经), bones(骨骼) or blood vessels(血管), especially the sciatic nerve(坐骨神经).

4.The dorsogluteal muscle(臀大肌) **should not** be used for children under 2 years of age, because the muscle is not fully developed(发育). The **ventrogluteal**(臀中小肌) is the preferred(首选的) injection site for children in order to prevent the injury of sciatic nerve (坐骨神经).

五、注意事项 二) IM

如需长期注射怎么办? 黄体酮、绒毛膜促性腺激素 ()

5.If the patient must receive frequent intramuscular injections, injection sites need to be alternated and longer needles should be selected. Instruct the patient to massage or use warm compress on the site after the injection to prevent tissue fibrosis.

如果患者需长期肌内注射, 应交替更换注射部位并选用细长的针头。指导患者注射后局部按摩或热敷, 以防产生局部硬结。

五、注意事项 二) IM

6. Don't insert the needle all the way in, because it is difficult to remove a needle if it breaks. If a needle breaks during injection, reassure your patient, ask him/her not to move, stabilize the site, and try to remove the broken needle using sterile hemostat forceps. If the broken needle is hard to retrieve, surgical removal may be required.

进针切勿将针头全部刺入, 以防断针难以取出。一旦注射时发生断针, 先稳定患者情绪, 并嘱患者原位不动, 固定局部组织, 尽快用无菌止血钳夹住断端取出。如断端难以找到, 应速请外科医生处理。

五、注意事项 二) IM

7.If blood appears in the syringe on aspiration after inserting the needle, it means the needle is in a blood vessel. If this occurs, stop the injection, withdraw the needle and replace with a new one, and inject at another site. Do not inject the medication into a blood vessel.

进针后如果回抽发现注射器内有回血, 说明针头刺入了血管。一旦发生这种情况, 应停止注射, 拔出针头, 更换新针头, 另选部位重新注射。不可将药液注入血管内。

五、注意事项 二) IM

8. Use special techniques to minimize the pain during injections: ①assist the patient to comfortable position and encourage him/her to relax the muscle you will be injecting; ②distract the patient by talking to the patient during injections; ③if the medication is irritating, after drawing up the medication, change the needle to a longer one and inject the needle deeper; ④prevent antiseptic from clinging to needle during insertion by waiting until the skin is dry;

应采用减轻患者疼痛的注射技术: ...

五、注意事项 二) IM

9.If the patient needs more than one medication injected at the same time, make sure that no medication incompatibilities exist.

如果患者需同时注射多种药物, 应确保药物没有配伍禁忌。

10.After the injection, avoid recapping the needle. Discard the needle-syringe unit into the sharps container immediately to avoid needlestick injuries and contamination. Make sure the injection site has no bleeding before you leave the patient.

注射完毕, 避免回套针头帽。不分离针头与注射器, 整套立即放进锐器盒, 以防针刺伤及被污染。离开患者时, 应确保注射部位不出血。

标准预防:

- 由美国疾病控制与预防中心1995年提出,
- 认定所有血液、体液、分泌物、排泄物(出汗除外)、不完整的皮肤及黏膜均具有传染性。
- 是一组感染预防措施,
- 应用于所有患者(不管是可疑的还是确定的感染状态)及任何卫生保健的场所。
- 具体包括手卫生; 手套、隔离衣、口罩、防护眼镜、或面罩的使用(根据预期暴露的情况而定)及安全注射技术。

(摘自:《隔离预防指引: 卫生保健场所感染性病原传播的预防, 2007》)