

Prevent administration of ear drops into the eyes

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When a practitioner, patient, or caregiver accidentally instills ear drops into the eye, it may lead to an immediate burning and/or stinging sensation, and the patient may later experience pain, redness, swelling, or blurred vision. Patients may need to flush their eyes with water or normal saline and/or apply warm or cold compresses. Others may need to go to the emergency department, an ophthalmology clinic, or their eye doctor for care.

In one recent case, a telehealth provider prescribed what they thought was neomycin sulfate 3.5 mg/mL, polymyxin B 10,000 units/mL, and hydrocortisone 1% ophthalmic drops for a patient with conjunctivitis.

After picking up the medication and instilling 4 drops into their eye, the patient felt severe burning. They read the label and realized the product was an otic suspension. The patient flushed their eye with water, but it did not relieve the pain.

Aside from look-alike eye and ear medication names and containers, another reported reason for this type of error is confusion between the words “optic” and “otic.”



Otic



Optic

Also, practitioners and patients sometimes use the term “eyedropper” when referring to the container used to instill both eye and ear drops, which could invite an error in which the person reading the label fails to see unexpected information in plain sight, such as the product formulation, a warning, or a picture/icon of an eye or ear.

While ear drops should never be used in the eyes, eye drops are made to be gentle and are sometimes used in the ears due to cost or availability. This practice can contribute to practitioners using products interchangeably.

While barcode scanning can prevent administration to the wrong patient and confirm the right product, it does not ensure the medication will be given via the correct route.

Safe practice recommendations

To reduce the risk of administering ear drops into the eyes, consider the following recommendations.

Storage

Keep medications in their original cartons, as icons of an ear or eye are sometimes on boxes but not on dropper bottles. Separate the storage areas for bottles of ear drops and eye drops on pharmacy shelves and in automated dispensing cabinets.

Prescribing

Build order sets/sentences in the electronic health record to guide prescribers to select the appropriate route, and automatically link the order with the corresponding product formulation. Specify the route of administration (e.g., right eye, left eye, each eye) and never use the abbreviations OD, OS, or OU, which can be mistaken as AD, AS, or AU (e.g., right ear, left ear, each ear). (Please see ISMP’s list of error-prone abbreviations at www.ismp.org/node/8.) Restrict prescribers from ordering ear drops for the eye.

Dispensing

Utilize barcode scanning before dispensing. Consider placing an auxiliary label with a photo of an ear or eye on the dropper bottle to specify ear or eye drops.

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Administration

When possible, administer ear drops and eye drops on different schedules (e.g., if given once daily). Use barcode scanning before administration and confirm the medication, route, and indication with the patient before administering ear drops or eye drops. Immediately dispose of any discontinued product.

Patient education

Confirm the expected route with the patient. Counsel patients using the teach-back method to reinforce the route. Educate patients to keep ear drops and eye drops in the carton, store them in separate locations at home, and discard any leftover medication. ■