# Risk Management in medical practice and hospitals

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## Checking procedures

When ordering drugs or other treatment over the telephone, you should always ask the recipient to repeat your instructions back to you so you can be sure they were received correctly.

- Be particularly careful when choosing the dose for a drug you are not familiar with.
- If a pharmacist or nurse questions a drug order or prescription, check it carefully – many problems are prevented by helpful interaction between colleagues.
- Always read the label on the bottle or vial before administering a drug or other substance, such as water for an injection.
- Establish the identity of the patient and double-check the prescription before administering medication.

## Communication

It is often necessary to order medications over the telephone, but this is a notoriously risky practice because your instructions may easily be misheard or misunderstood:

### Case report: misheard verbal prescription leads to patient's death

A patient, in the course of treatment in an acute hospital, was given parenteral morphine. The patient was sensitive to the drug and developed respiratory depression. The patient's doctor called in an order for an ampoule of naloxone to be administered. A dose was prepared from ward stock and given but there was no response. A repeat order for a second ampoule of naloxone was also given and again the patient showed no improvement. The nurse then questioned the doctor: "How much of this Lanoxin do you want me to give?" Instead of NaLoxone, the nurse heard LaNoxin. The patient subsequently died. Contributing to the error, the nurse had not repeated back the verbal order to the doctor, and the doctor had prescribed an ampoule of the drug rather than a metric weight dose. The nurse had accepted the incomplete order and administered an ampoule of LANOXIN® (digoxin) both times. (Irish Medication Safety Network, Briefing Document on Sound Alike Look Alike Drugs (SALAD) 2010.)

## General advice regarding communication

If you are prescribing medication to be administered by other members of the healthcare team, issue clear and unambiguous instructions – answer fully any queries they may have.

## Prescribing for children

We see many examples of errors occurring because a doctor failed to check the appropriateness of a drug and its route of administration for children or infants, or to prescribe the correct dose. While all the foregoing advice on avoiding medication errors applies to both children and adults, special care is needed when prescribing, preparing and administering drugs to children. Drugs that are relatively innocuous in adults may have adverse effects in children. Variations in height, weight and body mass can make them more susceptible; or they may quickly accumulate toxic levels as a result of slower metabolism and excretion. MPS sees many examples of errors occurring because a doctor failed to check the appropriateness of a drug and its route of administration for children or infants, or to prescribe the

correct dose. MPS has also seen tragic cases (such as the one recounted in the case report below) in which infants have died or been seriously and permanently impaired because doses of drugs were miscalculated or a decimal point misplaced.

**Case report**

An overworked doctor, who had been on duty for 11 hours overnight while deputizing for a colleague on leave, was asked to see a premature infant with biventricular heart failure. He was not normally responsible for the care of premature infants, but he prescribed digoxin to be given intramuscularly and calculated (by mental arithmetic) that the dose should be 0.6 mg. Just as he was settling down for a well-earned rest, the ward nurse phoned to ask whether the dose should not be 0.06 mg as she had to open two ampoules. Without thinking, he told her to "Give it as I ordered". An hour later he was called to the ward because the baby had suffered a cardiac arrest.

## Advice for safer paediatric prescribing

Remind [parents] of the importance of storing drugs in their labelled containers, and well out of children's sight and reach.

- Refer to a paediatric formula when appropriate and always seek advice from colleagues if you are not sure.
- When writing a prescription, include the child's age and write the exact dose in weight and (if liquid) volume required for administration.
- Always calculate doses on paper and get a competent colleague to check your arithmetic.
- When writing dosage, take special care in placing the decimal point and putting a zero in front of it.
- If you are prescribing in very small amounts of less than one milligram, prescribe in micrograms (written out – not abbreviated) to avoid confusion over the placing of decimal points.
- When prescribing for a child, it is particularly important to give the parents all relevant information such as:
  - the name of the drug
  - the reason for the prescription
  - how to store and administer the drug safely (if appropriate)
  - common side-effects
  - how to recognise adverse reactions.

Parents must always be warned about side effects, particularly those that will be distressing to the child (e.g. alopecia with cytotoxic drugs). It is also helpful to remind them of the importance of storing drugs in their labelled containers, and well out of children's sight and reach.

Errors have a tendency to compound themselves, so it is worth taking the time to ensure that essential tasks are carried out carefully. Many complaints arise from simple mistakes that could have been easily avoided. The most common system failures are:

- failure to pass on important information
- failure to arrange appointments, investigations or referrals with the appropriate degree of urgency
- failure to review the results of investigations
- failure to arrange follow-up and monitoring
- mislabelling, misfiling and failure to check labels.

## Minimising administrative risks

Transfers of care. In all scenarios it is crucial that those taking over the patient's care be equipped with up-to-date key information. This includes shift handovers, transfers to other wards and departments, transfers between hospitals and discharge home. In all these scenarios it is crucial that those taking over the patient's care be equipped with up-to-date key information. At a minimum, this should include diagnosis, treatment plans, medications, outstanding tests and test results.

Tests and investigations. When arranging urgent tests and investigations, let the lab know who they should contact with the results, especially if you are likely to be off duty by the time they are available (and be sure to let the incoming shift know). Make a note in the patient's record whenever tests and investigations are arranged, and record the results once they are available. Any abnormal results should be acted upon, not just filed in the notes. Patient identification. Record any crucial information as soon after the event as possible. Make a habit of checking a patient's identity – either by asking the patient or by checking the wristband – before administering any treatment. Do not rely on names on bedheads or on the charts at the foot of the bed as the patient may have got – or been put – into the wrong bed. For handover, use a combination of identifying information (e.g. name, age, DOB, diagnosis, bed number) to avoid confusion over patients with the same or similar sounding names. Do not rely solely on bed or bay numbers to refer to patients as these may change.

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