What should patients do if they miss a dose of their medicine?

Prepared by UK Medicines Information (UKMi) pharmacists for NHS healthcare professionals

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Date prepared: 23rd February 2017

Background

Sometimes patients forget to take their medicines at the normal time. This may cause a problem because missing a dose may make the medicine less effective, but taking doses too close together may increase the risk of side effects.

It is very difficult to give general guidance on what to do in these situations. Each situation needs to be looked at individually. However, this Medicines Q&A offers some general guidance, which may help patients who occasionally forget or delay a dose.

This guidance does not apply to patients who forget doses frequently. These patients should seek advice from a pharmacist or their doctor who may be able to recommend aids for reminding patients to take their medicines, or ways to simplify medication regimens.

Answer

Always look first in the manufacturer’s Patient Information Leaflet (PIL) supplied with the medicine. Many of these can be viewed via the electronic Medicines Compendium (eMC). Type the name of the medicine into the search box and if there is a PIL, it will be listed. Alternatively the Medicines Healthcare and products Regulatory Agency (MHRA) website lists all PILs for medicines licensed in the UK, at https://www.gov.uk/pil-spc.

PILs usually contain specific advice about missed doses. Note that not all medicines may be included on these websites, particularly if they are unlicensed or classed as a medical device, and that the Summaries of Product Characteristics (SPCs) on the same websites generally do not have missed dose information.

Only use the rest of this document if you cannot find a PIL.

There will be many situations that cannot be covered by a document like this and if in doubt patients should contact a pharmacist or doctor for advice. This is particularly advisable if more than one day of treatment has been missed and for certain medicines that need special care or have special instructions (see ‘Specific Medicines’ below).

General Advice

♦ If the dose is less than 2 hours late:
  Patients should take the missed dose as soon as they remember.

  As a general rule, for all oral medicines it is usually acceptable to take a dose up to 2 hours late. As a one-off, patients can disregard any warnings about taking the medicine before or after meals, as it is more important to take the dose. If patients take medicines at shorter intervals than usual, they may get more side effects.

♦ If the dose is more than 2 hours late:
  The advice depends on how often the medicine is taken:

  ⇒ If taken once or twice each day: people should usually take the dose as soon as they remember as long as the next dose is not due within a few hours*. Patients should then continue taking the medicine at the usual times.

  ⇒ If taken more often than twice a day: it is usually safer to omit the missed dose, and wait until the next dose is due, then continue as normal.
[*Note: there is no clear definition of ‘a few hours’, so advice may vary depending on the individual situation.]*

If in any doubt about what to do, patients should seek further advice from a pharmacist or doctor.

### Specific Medicines

For any of the medicines listed below, patients should look in the manufacturer’s Patient Information Leaflet (PIL) supplied with the medicine for specific advice on missed doses, and if they have any concerns, or are in any doubt as to what to do, they should seek further advice from a pharmacist, their GP or specialist nurse/clinic.

- **Epilepsy medicines**: it is especially important for patients with epilepsy to take their anti-epileptic medicines regularly. Missing a dose could trigger a seizure, although this would be rare. Usually people should take their dose as soon as they remember unless the next dose is due within a few hours. People who miss doses should avoid activities where having a seizure could be dangerous. Specific advice from the Epilepsy Society recommends that if medication is usually taken once a day, a forgotten dose should be taken as soon as it is remembered. For medicines taken twice a day, a forgotten dose can be taken if it is within six hours after it was due, otherwise it should be omitted and the next dose taken at the usual time (1).

- **Oral contraceptives**: missing oral contraceptive doses may compromise contraceptive efficacy (2). The advice varies according to the type of oral contraceptive (combined pill or progestogen only pill), how many pills have been missed, and when they have been missed (3). The Family Planning Association website (http://www.fpa.org.uk) provides useful information and advice. Women should follow the links to “Contraception help and advice” and find the information that relates to the type of pill they are taking.

- **Warfarin**: warfarin should be taken as a single dose at the same time each day (4). There does not appear to be any standard advice on how to manage missed doses and advice offered in manufacturers’ Patient Information Leaflets (PILs) varies. A pragmatic approach may be to advise that a missed dose may be taken if it is up to 12 hours late, but if more than 12 hours late, patients should not take it and take their next dose at the normal time (5). Patients should make a note of any missed doses, preferably in their anticoagulant treatment booklet, and remember to tell the healthcare staff at their next blood test appointment (5,6). If they are worried they should contact the anticoagulant clinic or their doctor for advice on any increased monitoring requirements.

- **Insulin**: patients with diabetes (type 1 or type 2) will be at risk of hyperglycaemia, and possibly ketoacidosis, if they miss insulin doses (7-10). They should follow any specific instructions given by their diabetes nurse/clinic or GP for this scenario. They should check their blood sugar, and may also need to test their urine for ketones, particularly if they have any symptoms. They should contact their diabetes nurse/clinic or GP if they have any concerns or need advice about subsequent doses (9,10).

- **Methotrexate once-weekly**: doses should normally be taken on the same day each week (11,12). If a dose is missed, it can be taken as soon as it is remembered if this is within two days. For instance if a person normally takes their methotrexate on a Tuesday, they could take it on Wednesday or Thursday (12). However, if the dose is three or more days late then a doctor or the rheumatology clinic should be contacted for advice. A double dose should not be taken to make up for a missed dose (11). It is unlikely that a disease flare-up would occur as a result of a single missed dose (12).

- **Immunosuppressant (transplant rejection) therapy and cancer medicines**: patients should ask their doctor or specialist nurse/clinic for advice on what to do if a dose of transplant rejection or cancer medicine is missed.
Summary

- **Always** check the Patient Information Leaflet (PIL) for advice on missed doses.
- Patients should speak to their pharmacist if they regularly forget doses.
- Guidance in this Q&A only applies to patients who occasionally forget a dose.
- In general, for any oral medicine it is usually acceptable to take a dose up to 2 hours late.
- If the dose is more than 2 hours late, and for medicines taken once or twice each day patients should usually take the dose as soon as they remember as long as the next dose is not due within a few hours. For medicines taken more frequently, it is usually safer to omit the missed dose.
- Additional advice is provided in this Q&A for missed doses of warfarin, insulin, oral contraceptives, epilepsy medicines, once-weekly methotrexate, and cancer medicines or immunosuppressants for transplant rejection.
- If in any doubt about what to do, patients should contact a pharmacist or their GP for advice, particularly if more than one day of treatment of any medicine has been missed.

Limitations

This is not intended as definitive guidance, but general advice based on the opinions of the authors and their advisers. It may not be applicable in all circumstances. Seek appropriate advice if uncertain. It is very difficult to give general guidance on what to do in these situations. Each situation needs to be looked at individually. This Medicines Q&A does not cover the situation where a patient vomits their medication.

References

Quality Assurance

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Date Prepared
23rd February 2017

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Date of check
29th March 2017

Search strategy
- Author's personal knowledge and clinical judgement.
- In-house clinical experts (original version).
- Consensus view of a national medicines information team (original version).
- NICE Clinical Knowledge Summaries https://cks.nice.org.uk/
- Internet search. www.google.co.uk (search: “warfarin yellow book”; “methotrexate booklet”)
- Family Planning Association website www.fpa.org.uk
- Faculty of Sexual Health and Reproductive Healthcare website http://www.fsrh.org/home/
- Patient website http://patient.info/
- Diabetes UK website https://www.diabetes.org.uk/
- Epilepsy Society website https://www.epilepsysociety.org.uk/
- Scottish Intercollegiate Guidelines Network website www.sign.ac.uk