



A summary of prescribing recommendations from NICE guidance

Medicines optimisation

NICE NG5

This guideline offers best practice advice on the care of all people who are using medicines and also those who are receiving suboptimal benefit from medicines^α

Medicines optimisation is defined as:

'a person-centred approach to safe and effective medicines use, to ensure people obtain the best possible outcomes from their medicines.'

Medicines optimisation is important to ensure a person is taking their medicines as intended and can support the management of long-term conditions, multimorbidities and polypharmacy. There are 4 guiding principles (Box 1) aiming to lead to improved patient outcomes.

Box 1: Royal Pharmaceutical Society: Medicines Optimisation

Medicines optimisation: guiding principles

- ◆ Aim to understand the patient's experience
- ◆ Evidence-based choice of medicines
- ◆ Ensure medicines use is as safe as possible
- ◆ Make medicines optimisation part of routine practice

An essential part of medicines optimisation is shared-decision making:

Shared decision-making

- ◆ Offer all people the opportunity to be involved in making decisions about their medicines. Find out the person's desired level of involvement in decision-making. Avoid making assumptions.
- ◆ Find out about a person's values and preferences. Discuss what is important to them about managing their condition(s) and medicines. Recognise that their values and preferences may be different from those of the health professional. Avoid making assumptions.
- ◆ Apply the principles of evidence-based medicine when discussing available treatment options with a person in a consultation about medicines. Use the best available evidence, together with clinical expertise and the person's values and preferences.
- ◆ It may be appropriate to have more than one consultation to ensure that a person can make an informed decision about their medicines. Opportunity should be given for the person to review their decision, because this may change over time.

See [NICE Pathway: Medicines optimisation](#)

^α This guideline updates and replaces **recommendation 1.4.2** in [NICE CG76: Medicines adherence](#) and replaces [Technical patient safety solutions for medicines reconciliation on admission of adults to hospital](#)

	Definition of terms
OTC	over-the-counter medicines that can be bought without a prescription
PINCER	pharmacist-led information technology intervention for medication errors
STOPP	screening tool of older person's potentially inappropriate prescriptions
START	screening tool to alert to right treatment
IPDAS	international patient decision aids standards

Medicines reconciliation

Definition: 'The process of identifying an accurate list of a person's current medicines and comparing them with the current list in use, recognising any discrepancies and documenting any changes – resulting in a complete list of medicines accurately communicated.'

- ◆ When a person moves from one care setting to another for acute care, accurately list all of the person's medicines (including prescribed, OTC and complementary medicines) and carry out medicines reconciliation within 24 hours or sooner if clinically necessary, e.g. if they are admitted to hospital.
- ◆ Recognise that medicines reconciliation may need to be carried out on more than one occasion e.g. when the person is admitted, transferred between wards or discharged.
- ◆ In primary care, carry out medicines reconciliation for all people who have been discharged from hospital or another care setting as soon as is practically possible, before a prescription or new supply of medicines is issued and within one week of the GP practice receiving the information.
- ◆ In all care settings, organisations should ensure that a designated health professional has overall organisational responsibility for the medicines reconciliation process. The process should be determined locally and include:
 - > organisational responsibilities,
 - > responsibilities of health and social care practitioners involved (including who they are accountable to),
 - > individual training and competency needs.
- ◆ Organisations should ensure that medicines reconciliation is carried out by a trained and competent health professional – ideally a pharmacist, pharmacy technician, nurse or doctor – with the necessary knowledge, skills and expertise including:
 - > effective communication skills,
 - > technical knowledge of processes for managing medicines,
 - > therapeutic knowledge of medicines use.
- ◆ Involve patients and their family members/carers, where appropriate, in the medicines reconciliation process.
- ◆ Record relevant information on an electronic or paper-based form.

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NICE NG5**Medication review**

Definition: 'a structured, critical examination of a person's medicines with the objective of reaching an agreement with the person about treatment, optimising the impact of medicines, minimising the number of medicines-related problems and reducing waste.'

- ◆ Consider carrying out a structured medication review for some groups of people when a clear purpose for the review has been identified. These may include older people and adults, children and young people:
 - > taking multiple medicines (polypharmacy),
 - > with chronic or long-term conditions.
- ◆ Organisations should determine locally the most appropriate health professional to carry out a structured medication review, based on their knowledge and skills, including all of the following:
 - > effective communication skills,
 - > technical knowledge of processes for managing medicines,
 - > therapeutic knowledge on medicines use.
- ◆ The medication review may be led by a pharmacist or an appropriate health professional who is part of a multidisciplinary team.
- ◆ During a structured medication review, take into account:
 - > the person's, and where appropriate, their family member's/ carer's views and understanding about their medicines and concerns, questions or problems with the medicines,
 - > all prescribed, OTC and complementary medicines that the person is taking or using, and what these are for,
 - > how safe the medicines are, how well they work for the person, how appropriate they are, and whether use is in line with national guidance,
 - > whether the person has had or has any risk factors for developing adverse drug reactions (report adverse drug reactions through the [yellow card scheme](#)),
 - > any monitoring that is needed.

Self-management plans

- ◆ When discussing medicines with people who have chronic or long-term conditions, consider using an individualised, documented self-management plan to support people who want to be involved in managing their medicines. Discuss at least all of the following:
 - > the person's knowledge and skills needed to use the plan; use a risk assessment if needed,
 - > the benefits and risks of using the plan,
 - > the person's values and preferences,
 - > how to use the plan,
 - > any support, signposting or monitoring needed.
- ◆ Record the discussion in the person's medical notes or care plan as appropriate.
- ◆ When developing an individualised, documented self-management plan, provide it in an accessible format for the person and consider including:
 - > the plan's start and review dates,
 - > the condition(s) being managed,
 - > a description of medicines being taken under the plan (including the timing),
 - > a list of the medicines that may be self-administered under the plan and their permitted frequency of use, including any strength or dose restrictions and how long a medicine may be taken for,
 - > known drug allergies and reactions to medicines or their ingredients, and the type of reaction experienced (see [NICE pathway: Drug allergy](#)),

- > arrangements for the person to report suspected or known adverse reactions to medicines,
- > circumstances in which the person should refer to, or seek advice from, a health professional,
- > the individual responsibilities of the health professional and the person,
- > any other instructions the person needs to safely and effectively self-manage their medicines.
- ◆ Review the self-management plan to ensure the person does not have problems using it.

Patient decision aids

- ◆ In a consultation about medicines, offer the person, and their family members/carers where appropriate, the opportunity to use a patient decision aid (when one is available) to help them make a decision that involves trade-offs between benefits and harms. Ensure the patient decision aid is appropriate in the context of the consultation as a whole.
- ◆ **Do NOT** use a patient decision aid to replace discussions with a person in a consultation about medicines.
- ◆ Ensure that patient decision aids have followed a robust and transparent development process, in line with the [IPDAS](#) criteria.
- ◆ Before using a patient decision aid in a consultation about medicines, understand its content, paying particular attention to limitations and the need to adjust discussions according to the person's baseline risk.
- ◆ Ensure the necessary knowledge, skills and expertise have been obtained before using a patient decision aid including:
 - > relevant clinical knowledge,
 - > effective communication and consultation skills, to find out patients' values and preferences,
 - > effective numeracy skills, to explain benefits and harms in natural frequencies, and relative and absolute risk,
 - > explaining trade-offs between particular benefits and harms.
- ◆ Organisations should consider:
 - > training and education needs for health professionals in developing the skills and expertise to use patient decision aids effectively in consultations about medicines,
 - > identifying and prioritising which patient decision aids are needed for their patient population e.g. through a local medicines decision-making group. Agree a consistent, targeted approach in line with local pathways and review use of these patient decision aids regularly.
- ◆ Organisations and health professionals should ensure that patient decision aids prioritised for use locally are disseminated to all relevant health professionals and stakeholder groups, such as clinical networks.

Medicines-related models of organisational and cross-sector working**Organisations should:**

- ◆ Consider a multidisciplinary team approach to improve outcomes for people who have long-term conditions and take multiple medicines (polypharmacy).
- ◆ Involve a pharmacist with relevant clinical knowledge and skills when making strategic decisions about medicines use or when developing care pathways that involve medicines use.

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NICE NG5**Medicines adherence (NICE CG76)****Supporting adherence**

- ◆ Recognise that non-adherence is common and that most people are non-adherent sometimes. Routinely assess adherence in a non-judgemental way whenever you prescribe, dispense and review medicines.
- ◆ Consider asking the person if they have missed any doses of medicine recently. Make it easier for them to report non-adherence by:
 - asking the question in a way that does not apportion blame,
 - explaining why you are asking the question,
 - mentioning a specific time period such as 'in the past week',
 - asking about medicine-taking behaviours such as reducing the dose, stopping and starting medicines.
- ◆ Consider using records of prescription re-ordering, pharmacy patient medication records and return of unused medicines to identify potential non-adherence and people needing additional support.

Interventions to increase adherence

- ◆ If a person is not taking their medicines, discuss with them whether this is because of beliefs and concerns or problems about the medicines (intentional non-adherence) or because of practical problems (unintentional non-adherence).
- ◆ Address any beliefs and concerns that the person may have that result in reduced adherence.
- ◆ Be aware that although adherence can be improved, no specific intervention can be recommended for all people. Tailor any intervention to the specific difficulties the person is experiencing.
- ◆ Find out what form of support the person would prefer. Consider available options.
- ◆ Evidence supporting interventions to increase adherence is inconclusive; only use targeted interventions to overcome practical problems if a specific need is identified, for example:
 - suggest a person records their medicine-taking,
 - encourage people to monitor their condition,
 - simplify the dosing regimen,
 - use alternative packaging for the medicine,
 - use a multi-compartment medicines system.
- ◆ Side effects can be a problem for some people. If so:
 - discuss how to deal with side effects,
 - discuss the benefits, side effects and long-term effects with the person to allow them to make an informed choice,
 - consider adjusting the dosage,
 - consider switching to another medicine with a different risk of side effects,
 - consider what other strategies might be used e.g. timing of medicines.
- ◆ Ask the person if prescriptions charges are a problem. If they are, consider possible options to reduce costs.

Clinical decision support

In this guideline clinical decision support relates to computerised support which may be active or interactive at the point of prescribing medicines.

See [NICE Pathway: Medicines optimisation](#)

Organisations should:

- ◆ Consider computerised clinical decision support systems (taking account of existing systems and resource implications) to support clinical decision-making and prescribing. Ensure these do not replace clinical judgement.
- ◆ Ensure that robust and transparent processes are in place for developing, using, reviewing and updating computerised clinical decision support systems.
- ◆ Ensure that health professionals using computerised clinical decision support systems at the point of prescribing have the necessary knowledge and skills to use the system, including an understanding of its limitations.
- ◆ When using a computerised clinical decision support system ensure that it:
 - identifies important safety issues,
 - includes a system for health professionals to acknowledge mandatory alerts. This should not be customisable for alerts relating to medicines-related 'never events',
 - reflects the best available evidence and is up-to-date,
 - contains useful clinical information that is relevant to the health professional to reduce 'alert fatigue' (when a prescriber's responsiveness to a particular type of alert declines with repeated exposure to that alert over time).

Systems for identifying, reporting and learning from medicines-related patient safety incidents**Organisations should:**

- ◆ Support a person-centred, 'fair blame' culture that encourages reporting and learning from medicines-related patient safety incidents.
- ◆ Ensure that robust and transparent processes are in place to identify, report, prioritise, investigate and learn from medicines-related patient safety incidents, in line with national patient safety reporting systems e.g. [the National Reporting and Learning System](#).
- ◆ Consider using multiple methods to identify medicines-related patient safety incidents e.g. health record review, patient surveys and direct observation of medicines administration. Agree the approach locally and review arrangements regularly to reflect local and national learning.
- ◆ Ensure that national medicines safety guidance, such as patient safety alerts, are actioned within a specified or locally agreed timeframe.
- ◆ Consider assessing the training and education needs of health and social care practitioners to help patients and practitioners identify and report medicines-related patient safety incidents.
- ◆ Consider exploring what barriers exist that may reduce reporting and learning from medicines-related patient safety incidents. Any barriers identified should be addressed e.g. using a documented action plan.

Organisations and health professionals should:

- ◆ Consider applying the principles of the **PINCER** intervention to reduce the number of medicines-related patient safety incidents, taking account of existing systems and resource implications which include:
 - using information technology support,
 - using educational outreach with regular reinforcement of educational messages,

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- > actively involving a multidisciplinary team, including GPs, nurses and support staff,
- > having dedicated pharmacist support,
- > agreeing an action plan with clear objectives,
- > providing regular feedback on progress,
- > providing clear, concise, evidence-based information.
- ◆ Consider using a screening tool e.g. the **STOPP/START** tool in older people, to identify potential medicines-related patient safety incidents in some groups which may include older people and adults, children and young people:
 - > taking multiple medicines (polypharmacy),
 - > with chronic or long-term conditions.

Health and social care organisations and practitioners should:

- ◆ Ensure that action is taken to reduce further risk when medicines-related patient safety incidents are identified.
- ◆ Apply and share learning in the organisation and across the local health economy, including feedback on trends or significant incidents to support continuing professional development. This may be through a medicines safety officer, controlled drugs accountable officer or other medicines safety lead.

Health and social care practitioners should:

- ◆ Explain to people, and their family members or carers where appropriate, how to identify and report medicines-related patient safety incidents.
- ◆ Report all identified medicines-related patient safety incidents consistently and in a timely manner, in line with local and national patient safety reporting systems, to ensure that patient safety is not compromised.

Communication during transfer of care*

- ◆ Take into account the five rules set out in the [Health and Social Care Information Centre's a guide to confidentiality in health and social care](#) when sharing information.
- ◆ Organisations should ensure that robust and transparent processes are in place, so that when a person is transferred from one care setting to another:
 - > the current care provider shares complete and accurate information about the person's medicines with the new care provider, **AND**
 - > the new care provider receives and documents this information, and acts on it.
- ◆ Clearly define organisational and individual roles and responsibilities. Review regularly and monitor effectiveness of these processes.

Health and social care practitioners should:

- ◆ For all care settings, proactively share complete and accurate information about medicines:
 - > ideally within 24 hours of the person being transferred, to ensure that patient safety is not compromised, **AND**
 - > in the most effective and secure way e.g. secure electronic communication. Recognise that more than one approach may be needed.
- ◆ Share relevant information about the person and their medicines when a person transfers from one care setting to another. This should include, but is not limited to, all of the following:
 - > contact details of the person and their GP,
 - > other relevant contacts identified by the person and their family members/carers where appropriate e.g. their nominated community pharmacy,
 - > known allergies and reactions to medicines or their ingredients, and type of reaction experienced (see [NICE pathway: Drug allergy](#)),

- > details of medicines the person is currently taking (including prescribed, OTC and complementary medicines): name, strength, form, dose, timing, frequency and duration, how the medicines are taken and what they are being taken for,
- > changes to medicines, including when started or stopped, dosage changes, and reason for the change,
- > date and time of the last dose, such as for weekly or monthly medicines, including injections,
- > what information has been given to the person, and their family members/carers where appropriate,
- > any other information needed e.g. when medicines should be reviewed, ongoing monitoring needs and any support the person needs to carry on taking the medicines. Additional information may be needed for specific groups of people, such as children.
- ◆ Discuss relevant information about medicines with the person, and their family members/carers where appropriate, at the time of transfer. Give the person, and their family members/carers where appropriate, a complete and accurate list of their medicines in a suitable format. This should include all current medicines and any changes to medicines made during their stay.
- ◆ Consider sending a person's medicines discharge information to their nominated community pharmacy, when possible and in agreement with the person.
- ◆ Organisations should consider arranging additional support for some groups of people when they have been discharged from hospital, such as pharmacist counselling, telephone follow-up, and GP or nurse follow-up home visits. These groups may include older people and adults, children and young people,
 - > taking multiple medicines (polypharmacy),
 - > with chronic or long-term conditions.

Related documents

[Making shared decision-making a reality: no decision about me, without me. Kings Fund 2011](#)

[Polypharmacy and medicines optimisation – making it safe and sound. Kings Fund 2013](#)

[NICE CG138: Patient experience in adult NHS services](#)

[NICE CG136: Service user experience in adult mental health](#)

[NICE CG76: Medicines Adherence](#)

[Good practice in prescribing and managing medicines and devices. General Medical Council 2013](#)

[Francis Report 2013](#)

[A promise to learn – a commitment to act: improving the safety of patients in England. Berwick Report 2013.](#)

[NHS Constitution – the NHS belongs to us all. 2013](#)

[Medicines optimisation: helping patients make the most of medicines. Royal Pharmaceutical Society 2013](#)

[Medicines Optimisation dashboard. NHS England 2014](#)

[National Reporting and Learning System. National Patient Safety Agency 2010](#)

[NHS Safety Thermometer](#)

[Yellow card scheme](#)

* Recommendations in this section update and replace **recommendation 1.4.2** in [NICE CG76: Medicines adherence](#)