Introduction

This Quick Reference Guide provides a summary of SIGN 50: A guideline developer’s handbook. The full guideline is available on the SIGN website: www.sign.ac.uk

SIGN methodology complies with the criteria set out in Agree II (Appraisal of Guidelines for Research and Evaluation in Europe) to identify good quality guidelines: www.agreetrust.org. The principal aim of this quick reference guide is to provide a reference tool that may be used by members of guideline development groups as they work through the development process. SIGN 50 outlines the key elements of the development process common to all SIGN guidelines.

The Scottish Intercollegiate Guidelines Network

The Scottish Intercollegiate Guidelines Network (SIGN) was established in 1993 to develop evidence based clinical guidelines for the National Health Service in Scotland. SIGN Council is the policy making body for SIGN with overall responsibility for topic selection, methodology, and editorial policy. Members of SIGN Council are nominated by the Royal Colleges or other professional organisation or committee. Public partners are identified from an open call for interested individuals.

SIGN guidelines are intended as an aid to clinical judgement not to replace it. Guidelines do not provide the answers to every clinical question, nor guarantee a successful outcome in every case. The ultimate decision about a particular clinical procedure or treatment will always depend on each individual patient’s condition, circumstances and wishes, and the clinical judgement of the healthcare team.

Influence of financial and other interests

All individuals involved in the SIGN guideline development process must declare any competing interests (financial and non-financial) on at least an annual basis. This includes all of the following:

- SIGN Council and subcommittee members and deputies
- SIGN Executive staff
- speakers at SIGN events
- guideline development group members
- peer reviewers
- all who submit proposals to SIGN.

Signed copies are retained by the SIGN Executive and are available on the SIGN website. Full details of the declarations of interest policy are available on the SIGN website.
**Topic selection**

Guidelines should address a specific healthcare need. There should be an expectation that change is possible and desirable and that there is potential to improve the quality of care and/or patient outcomes. There must also be robust evidence of effective practice on which to base recommendations. The following criteria are considered by SIGN in selecting and prioritising topics for guideline development:

- Areas of clinical uncertainty as evidenced by wide variation in practice or outcomes.
- Conditions where effective treatment is proven and where mortality or morbidity can be reduced.
- Iatrogenic diseases or interventions carrying significant risks.
- Clinical priority areas for strategic aims of NHSScotland.
- The perceived need for the guideline, as indicated by a network of relevant stakeholders.

For information on the current SIGN programme, see the SIGN website: [www.sign.ac.uk](http://www.sign.ac.uk)

**Proposing a guideline topic**

Any group or individual may propose a guideline topic to SIGN. The guideline proposal forms are available from the SIGN website: [www.sign.ac.uk](http://www.sign.ac.uk). Applicants are asked to define:

- the clinical problems and outcomes to be addressed
- the group(s) or institution(s) supporting the proposal
- the background to the clinical topic
- the evidence of variation in practice in the management of the condition
- benefits likely to arise from the development and successful implementation of the proposed guideline
- key areas of concern for patients, carers and/or the organisations that represent them
- the patient group to which the guideline will apply
- aspects of management of the clinical condition which the proposed guideline will address and clinical setting
- the healthcare professionals potentially involved in developing the guideline
- the size and strength of the evidence base which is available to support recommendations on effective practice, citing key supporting papers
- any existing guidelines or systematic reviews in the field.
** Updating published guidelines **

All SIGN guidelines are considered for review three years after publication. As medical practice continues to develop and new options for treatment become available, guidelines inevitably fall behind current best practice. They must therefore be kept under constant review and updated when necessary.

The currency of guidelines is categorised in a traffic light system on the SIGN website in the following way:

- current (less than three years old)
- three to seven years old (some recommendations may be out of date)
- over seven years old (use with caution)
- under review
- over 10 years old (withdrawn)
- superseded (withdrawn).

Individuals commenting on published guidelines are invited to complete a small change proposal form, which is processed in the same way as full proposals.

Any updates to the guideline are recorded in a review report for the guideline which is accessed from the guideline landing page or guideline list on the SIGN website [www.sign.ac.uk](http://www.sign.ac.uk).
**Stakeholder involvement**

To facilitate ownership of both the guideline development process and the resulting recommendations guideline development groups should be multidisciplinary in their composition, with representation from all relevant professional groups, and participation of patients, carers and appropriate voluntary organisations.

**Patient involvement**

The involvement of patients in guideline development is important to ensure that the guideline addresses issues that matter to them and that their perspectives are reflected in the guideline. Patients can identify issues that may be overlooked by health professionals, can highlight areas where the patient’s perspective differs from the views of health professionals, and can ensure that the guideline addresses key issues of concern to patients.

SIGN supports patient representatives by:

- delivering training for patient representatives
- offering telephone and email support
- inviting new patient representatives to join the SIGN Patient Network
- providing clear guidance on their roles and responsibilities within the group.

**Identifying patients’ views**

SIGN performs a literature search to identify both qualitative and quantitative studies that reflect patients’ experiences and preferences in relation to the clinical topic. The types of studies identified generally include patients’ views on:

- positive and negative experiences of the condition, including diagnosis, medication and other treatments, follow-up care and quality of life
- unfulfilled needs
- information needs and preferences
- participation in decision making about treatment
- overall satisfaction with care received.

A copy of the Medline version of the patient search strategy is available on the SIGN website [www.sign.ac.uk](http://www.sign.ac.uk)
Patient organisations and the SIGN Patient Network

To gather more information on which issues the guideline should address, SIGN also writes to:

- organisations and charities that aim to represent and/or lobby for patients
- other NHS organisations
- members of the SIGN Patient Network.

The SIGN Patient Network is a ‘virtual’ group of patient, carer and other service user representatives. More information on the role of the Patient Network can be found on the SIGN website www.sign.ac.uk

Where published evidence is scarce and inadequate feedback from patient organisations has been received, patient and carer views may be sought through direct contact with users of the service, for example focus groups, attending patient support group meetings, and SIGN organised meetings for patients and carers.

The Patient Involvement Officer reviews the results of the patient literature search, and seeks to identify common themes that emerge from the literature. These themes are then integrated with the issues that emerge from the other approaches described above and are presented at the first meeting of the guideline development group by the Patient Involvement Officer.

The guideline development group

The SIGN Executive, in discussion with all relevant bodies, aims to bring together a group that:

- is multidisciplinary, with all relevant clinical specialties represented alongside lay input
- is relevant to current practice by including members involved in day-to-day delivery of health care, and topic experts and academics representing the range of care settings related to the clinical condition (e.g., primary, secondary and tertiary care centres)
- encompasses the range of skills and expertise required for the specific project
- is geographically representative by including participants from across Scotland from urban centres and rural locations.
Roles and responsibilities of development group members

In putting together a guideline development group, SIGN is aware of the many psychosocial factors, including the problems of overcoming professional hierarchies that can affect small group processes. Although their areas of expertise will vary, members of the guideline development group have equal status on the group.

Each guideline development group requires a mix of the following skills:

- clinical expertise (eg medical, surgical, nursing etc)
- other specialist expertise (eg health economics, social services)
- practical understanding of problems faced in the delivery of care
- communication and team working skills
- critical appraisal skills.

Chair

Chairs of guideline development groups must:

- be sensitive to pre-existing inter-professional tensions and hierarchies
- ensure that all members of the group feel able to contribute fully to the guideline development process
- be aware of, and attentive to, how the group interacts and communicates and makes decisions
- have good chairing and negotiation skills.

Guideline development group members

Guideline development group members must:

- make a full commitment to the group and the tasks involved in guideline development, and
- be responsible for indicating areas of concern to the Chair.

They should also bear in mind that they represent both a geographical region and a specialty or professional group, and must be prepared to consult with colleagues to ensure that the widest possible range of views are considered.
Roles and responsibilities of guideline development group members

Patient and carer representatives

The key role for patient and carer representatives is to ensure that patient views and experiences inform the group's work. This includes:

- ensuring that key questions are informed by issues that matter to patients
- identifying outcome measures they think are important for each key question
- considering the extent to which the evidence presented by group members has measured and taken into account these outcome measures
- identifying areas where patients' preferences and choices may need to be acknowledged in the guideline
- making sure that the degree to which the evidence addresses patients' concerns is reflected in the guideline
- helping to write the Provision of Information chapter of the guideline, including identifying sources of further information
- raising awareness of patient issues at the national open meeting
- helping to ensure that the guideline is sensitively worded (for example treating patients as people and not as objects of tests or treatments).

SIGN Executive

The Programme Manager assigned to each guideline helps the Chair to identify potential barriers to successful group work, to plan and progress the guideline development project, and acts as facilitator at group meetings.

The SIGN team supporting each guideline development group ensures that clinical knowledge and expertise is appropriately applied to the interpretation of the evidence base and that all group members have the opportunity to actively contribute when the drafting of guideline recommendations is being undertaken.

Work commitment

The approximate life span of each guideline development group varies depending on whether it is a new project (around 29 months), an update (around 15 months) or a minor revision (3–6 months). For a full guideline project, groups meet on average once every two to three months, although groups may form subgroups which meet more frequently.
Wider consultation

National Open Meeting

SIGN holds a national open meeting to discuss the draft recommendations of each guideline. This takes place whilst the guideline is still in development and gives the guideline development group the opportunity to present its preliminary conclusions and draft recommendations to a wider audience. The draft guideline is also available on the SIGN website for a month at this stage to allow those unable to attend the meeting to contribute. The benefits of the national open meeting are twofold:

• the guideline development group obtains valuable feedback and suggestions for additional evidence which group members might consider, or alternative interpretation of that evidence

• the participants are able to contribute to and influence the form of the final guideline, generating a sense of ownership over the guideline across geographical and disciplinary boundaries.

Corporate interests, whether commercial, professional, or societal have an opportunity to make representations at the national meeting stage where they can send representatives to the meeting or provide comment on the draft produced for that meeting.

Peer review

All SIGN guidelines are reviewed in draft form by independent expert referees, who are asked to comment primarily on the comprehensiveness and accuracy of interpretation of the evidence base supporting the recommendations in the guideline. The draft is also sent to at least two lay reviewers in order to obtain comments from the patient’s perspective. The comments received from peer reviewers and others are compiled in a report and discussed with the guideline development group. Each point must be addressed and any changes to the guideline as a result noted or, if no change is made, the reasons for this recorded.

The names and designations of all reviewers are published in the guideline and their comments, along with responses, and declaration of interest forms are available from SIGN on request.

Editorial review

As a final quality control check prior to publication, the guideline and the summary of peer reviewers’ comments are reviewed by the SIGN Editorial Group to ensure that each point has been addressed adequately and that any risk of bias in the guideline development process as a whole has been minimised.
**Guideline development**

SIGN guidelines are developed using a considered judgement process informed by systematic reviews of the evidence for each key question to be addressed in the guideline.

**Defining key questions**

Deciding the key questions is entirely the responsibility of the guideline development group which must apply its knowledge and experience to ensuring the questions address the key issues in the area to be covered by the guideline. The Evidence and Information Scientist working with the group provides guidance on the formatting of the questions, and ensures they are in a format likely to produce useable results. They will also ensure that the key questions address appropriately the issues identified through the patient consultation exercise.

The guideline remit is broken down into a series of structured key questions using the PICO format:

- **P**atients or population to which the question applies (largely defined by the presence of the particular condition, consideration should also be given to issues of equity)

- **I**ntervention (or diagnostic test, exposure, risk factor, etc) being considered in relation to these patients

- **C**omparison(s) to be made between those receiving the intervention and another group who do not receive the intervention

- **O**utcome(s) to be used to establish the size of any effect caused by the intervention. Outcomes should be rated in terms of their importance and as far as possible should be objective and directly related to patient outcomes. Patient important outcomes and potential harms associated with the intervention should be considered along clinically important outcomes so that a balanced view can be taken at the considered judgment stage.

As part of the question setting process, a set of inclusion and exclusion criteria should be agreed to provide guidance when studies are being selected for review. Inclusion criteria will include definition of the topic and such factors as duration of therapy, drug dosage, and frequency of treatment. Other factors include any geographic or language limits, type of trial, and date range.

These questions then form the basis of the literature search, which is undertaken by a SIGN Evidence and Information Scientist.
Systematic literature review

The SIGN approach is to produce a systematic review of the evidence for each key question. The essential elements of systematic review are that the literature:

- is identified according to an explicit search strategy
- selected according to defined inclusion and exclusion criteria
- evaluated against consistent methodological standards.

Identifying and selecting the evidence

The literature search must focus on the best available evidence to address each key question. SIGN uses a set of standard search filters that identify:

- systematic reviews
- randomised controlled trials
- observational studies
- diagnostic studies
- economic studies.

These search filters are available from the [SIGN website](http://sign.org.uk).

To minimise bias and to ensure adequate coverage of the relevant literature, the literature search must cover a range of sources. As a minimum, SIGN requires searches to cover the Cochrane Library, Medline, NHS Economic Evaluations Database (NEED), internet sites related to the topic and WHO International Clinical Trials Registry Platform.

The period that the search covers will depend on the nature of the clinical topic under consideration, and will be discussed with the guideline development group. For a rapidly developing field a 5 year limit to the search may be appropriate, whereas in other areas a much longer time frame might be necessary.

A listing of the Medline search strategies used for the guideline, plus notes of any significant variation on other databases, is available from the SIGN website when the guideline is published.

A preliminary sift of each search result is carried out by SIGN staff to eliminate irrelevant material. A final sift is carried out by at least one member of the guideline development group, who will apply clinical judgement to reject any other studies that do not meet the pre-agreed criteria. Only when all stages of search result sifting have been completed will the papers be acquired for evaluation.
Evaluating the literature

Once papers have been selected as potential sources of evidence, the methodology used in each study is assessed to ensure its validity.

The methodological assessment is based on a number of criteria that focus on those aspects of the study design that research has shown to have a significant effect on the risk of bias in the results reported and conclusions drawn. These criteria differ between study types and a range of checklists is used to bring a degree of consistency to the assessment process.

Copies of these checklists and accompanying notes on their use are available on our website.

The methodology of studies selected for full consideration is appraised by at least two people with experience in carrying out appraisals. The subjective nature of critical appraisal makes double checking essential to minimise the chance of bias and to ensure consistency. Where reviewers cannot agree on the overall quality of a study the Programme Manager will arbitrate before a study goes forward for inclusion in the evidence base.

Presenting the evidence

The next step in the guideline development process is to examine the body of evidence associated with each specific key question.

A completed evidence table based on an internally conducted systematic review of the literature will be provided for all questions. These will either update existing reviews or provide a review of all relevant literature. Each evidence table will include methodological evaluation of and data from each individual study relevant to a specific key question. Study results will be reported on a per outcome basis wherever possible.

An example of a completed evidence table is available on our website.
Considering the quality of evidence

The evaluation of a body of evidence should be completed before deciding what to recommend in the guideline. The focus is on the quality of the available evidence, not what conclusions may be drawn from it. The following features of the body of evidence are discussed and recorded in in part A of the considered judgment proforma (see our website).

How reliable are the studies in the body of evidence?

The first issue to be considered is the risk of bias in the studies that make up the body of evidence related to a particular question. The methods used for the assessment of risk of bias in individual studies are outlined in the section on evaluating the literature.

Are the studies consistent in their findings?

Also known as heterogeneity, this aspect looks at all the studies relating to a particular outcome to see if they all either support or reject the course of action being considered. Sometimes there are clinical reasons to explain inconsistency and these will be discussed by the guideline development group. In the context of SIGN guideline development, calculation of statistical heterogeneity will normally only be available through published meta-analyses.

Are the studies relevant to our target population?

This is often referred to as directness of evidence or as applicability or external validity. In this context it relates to how directly applicable the evidence is to NHSScotland. Examples of factors that can influence the applicability of evidence include:

- variations in baseline risk
- differences in genetic makeup of the population
- differences in culture or lifestyle between populations
- differences in how care is delivered, or availability of technologies or resources
- different outcomes measured in studies to those that the guideline development group see as being of critical importance
- differences in how the intervention(s) studied is/are administered to patients in Scotland
- use of indirect (surrogate) outcomes
- indirect rather than direct comparison of outcomes.
How sure are we that estimates of the size of effect are reliable?

This is often referred to as precision of the estimate of effect. It relates to how confident the user can be in any estimate of the size of the effect to be expected from an intervention or exposure. Precision around an effect estimate is usually presented as 95% confidence intervals.

Are we sure we have all the relevant evidence?

This question relates to publication bias, where only some study results (usually the positive ones) have been reported. Unfortunately it is not usually possible to establish the presence or absence of publication bias, and reviewers can only indicate if it is likely or unlikely.

An example considered judgement form is available on our website.

Evidence to recommendations

One of the factors likely to influence a practitioner’s decision to implement a recommendation is the degree of confidence that they have in it; that is how certain they are that following the recommendation will produce the expected improvement in outcome for their patients. Not only does this certainty relate to the degree of confidence in the size of effect of an intervention in relation to specific important outcomes, but it also encompasses other issues such as patient preferences and the availability of resources to support introduction of a new intervention. For this reason the guideline development group has to consider both the overall quality of the supporting evidence and the other factors that might influence the strength of the recommendation.

At this stage in the process, the guideline development group draws on the summarised evidence recorded on part A of the considered judgement proforma. The following factors are then considered and recorded on part B of the considered judgment proforma form (see our website) to allow recommendations to be formed from the evidence.

How sure are we that any given option will work?

The guideline development group should focus on (for each outcome):

- outcome
- impact
- number of studies
- quality/certainty of the body of evidence.
Balancing benefits and harms

Fundamental to making any recommendation is the need to have a clear understanding of how substantial the expected benefits of an intervention are likely to be in practice. The guideline development group also needs to consider how substantial the downsides are. It is essential to explicitly consider the size of effect for both sides of the balance. Once the size of all effects has been established, a judgment must be made as to whether the benefits outweigh the harms. This is not just a clinical judgment but must take into account patient values if a realistic assessment is to be achieved.

How do patients value the different outcomes?

For a recommendation to be implemented effectively, it is important that the outcomes are sufficiently valued by patients for them to be willing to adhere to the treatment. When developing guideline recommendations, the focus should be on questions where the application of values is likely to affect outcomes. Assessing patient values and preferences can focus on the extent to which patients are likely to follow a recommended course of action.

Equity

Under the Equality Act 2010 all public bodies in Scotland are required to take into account the needs of equality groups:

- age
- disability
- gender reassignment
- marriage and civil partnership
- race
- religion or belief
- sex
- sexual orientation.

Guideline groups are therefore required by law, as well as good practice, to consider whether any recommendations they make will have a differential impact on any of these groups.

Apart from issues of social equity, subgroups may need to be considered for clinical reasons such as specific comorbidities, or issues around polypharmacy where separate recommendations may be required for these groups.
Costs and benefits

There are two aspects to the consideration of costs and benefits in relation to guideline recommendations. The first relates to cost effectiveness of a single proposed intervention, and involves assessing the incremental cost of applying the new intervention compared to current practice and relating it to the net benefit of the intervention. The guideline should always identify the most cost-effective option, with the ‘next best’ as an interim option only.

The second issue relates to the resources required to implement a recommendation across the NHS in Scotland.

Making recommendations

Balancing all the issues described is complex and presents a challenge to any guideline group. The outcome of the decision-making process is to produce a recommendation that is rated as either ‘strong’ or ‘conditional’ (see Key to evidence statements and forms of recommendations).

High quality evidence from well conducted studies should lead to a strong recommendation, but relating the trial populations to the target population of a guideline and taking into account issues of cost and patient acceptability may lead to a recommendation that is much weaker than first thought. Equally, there will be circumstances where the evidence is flawed but there are few or no downsides to treatment and the clinical importance of the topic is such that a strong recommendation is justifiable.

Making good practice points

Good practice points (GPP) are intended to assist guideline users by providing short pieces of advice which may not have an evidence base, but which are seen as essential to good clinical practice.

Examples of acceptable GPPs:

- Healthcare professionals should refer to the WHO medical eligibility criteria for contraceptive use prior to offering contraceptive advice to women with diabetes.
- Healthcare professionals should signpost patients to self help resources, identified and recommended by local pain services, at any point throughout the patient journey.

An example considered judgement form is available on our website.
### Key to evidence statements and forms of recommendations

#### Levels of evidence

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>1++</td>
<td>High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias</td>
</tr>
<tr>
<td>1+</td>
<td>Well conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias</td>
</tr>
<tr>
<td>1</td>
<td>Meta-analyses, systematic reviews, or RCTs with a high risk of bias</td>
</tr>
<tr>
<td>2++</td>
<td>High quality systematic reviews of case control or cohort studies</td>
</tr>
<tr>
<td>2+</td>
<td>Well conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal</td>
</tr>
<tr>
<td>2</td>
<td>Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal</td>
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<tr>
<td>3</td>
<td>Non-analytic studies, eg case reports, case series</td>
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<tr>
<td>4</td>
<td>Expert opinion</td>
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#### Forms of recommendation

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<th>Judgment</th>
<th>Recommendation</th>
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<tr>
<td>Undesirable consequences clearly outweigh desirable consequences</td>
<td>Strong recommendation against</td>
</tr>
<tr>
<td>Undesirable consequences probably outweigh desirable consequences</td>
<td>Conditional recommendation against</td>
</tr>
<tr>
<td>Balance between desirable and undesirable consequences is closely balanced or uncertain.</td>
<td>Recommendation for research and possibly conditional recommendation for use restricted to trials</td>
</tr>
<tr>
<td>Desirable consequences probably outweigh undesirable consequences</td>
<td>Conditional recommendation for</td>
</tr>
<tr>
<td>Desirable consequences clearly outweigh undesirable consequences</td>
<td>Strong recommendation for</td>
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#### Good practice points

Recommended best practice based on the clinical experience of the guideline development group
Providing information for patients

All SIGN guidelines include a ‘Provision of information’ section, which gives examples of the information patients and carers may find helpful at the key stages of the patient journey. The information in this section is provided for use by health professionals when interacting with patients and carers and for guiding the production of locally produced information materials. The issues highlighted in this section are informed by:

- patient views gathered earlier in the development process
- discussion with patient representatives on the development group
- input from other guideline development group members.

This section also includes details of appropriate help lines, support groups and reading materials.
Implementation

It is important to ensure the implementation of evidence based guideline recommendations. There are two types of barriers to the implementation of guidelines: those internal to the guideline itself, and the external barriers relating to the clinical environment and particular local circumstances.

SIGN addresses the internal barriers by:

- developing guidelines according to a highly respected methodology
- ensuring clarity of definitions, language, and format
- presenting the guideline in a way appropriate to target group(s), subject matter, and the intended use.

SIGN addresses the external barriers by developing guideline specific implementation strategies consisting of elements from the following four domains.

<table>
<thead>
<tr>
<th>Improving processes</th>
<th>Awareness raising and education</th>
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<tbody>
<tr>
<td>Robust dissemination process</td>
<td>Local clinical champions</td>
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<tr>
<td>Interactive website</td>
<td>Awareness raising activities</td>
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<td></td>
<td>Patients as champions for change</td>
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<td></td>
<td>Training modules linked to Continuous Professional Development (CPD)</td>
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<tr>
<th>Networking</th>
<th>Implementation support resources</th>
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<tr>
<td>Linking with professional networks</td>
<td>Algorithms and care pathways</td>
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<td>Linking with existing Scottish Government projects</td>
<td>Resource implication tools</td>
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<td>Audit tools and datasets</td>
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<td>Electronic decision support tools</td>
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<td>Slide sets</td>
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<td>Documentation templates</td>
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## Practical steps towards guideline implementation

### Step 1
- Decide who will lead and coordinate the team.
- Identify stakeholder representatives for the implementation group.
- Nominate a key facilitator for this process.
- Ensure the team is multiprofessional in composition.

### Step 2
Determine the current position by:
- identifying where changes need to be made
- auditing current clinical practice
- reviewing the local environment considering people, systems, structures and internal and external influences
- identifying potential barriers and facilitators to implementation.

### Step 3
- Prepare the people and the environment for guideline implementation. It is important to ensure that the professionals are receptive with a positive attitude to the initiative and have the skills and knowledge to carry out the procedures. This requires time, enthusiasm and commitment with good communication and offers of tangible help.
- Involve patient groups in planning the initiative so they are involved from the outset and can influence the way that the guideline is implemented into local services. It is important to take into account patient preferences and views eg Scottish Health Council publications, local surveys.
- Acquire new equipment or change forms or access services in a different way, if necessary. It may be possible to consider the inclusion of reminder notes or computer assisted reminders.

### Step 4
- Decide which implementation techniques to use to promote the use of the clinical guidelines in practice.
- Take into account the potential barriers already identified.
- Use the research evidence on effective strategies.

### Step 5
Pull it all together with:
- an action plan for the improvement process
- agreed aims with a named person responsible for the action plan
- a time scale identified with contingency plans to deal with any problems along the way.

### Step 6
- Evaluate progress through regular audit and review with feedback to the team.
- Celebrate successes and reward achievements.
- Modify plans in light of difficulties or surprises found during the implementation process.
- Aim for small achievable steps along the way to improve the quality of patient care.
The Healthcare Environment Inspectorate, the Scottish Health Council, the Scottish Health Technologies Group, the Scottish Intercollegiate Guidelines Network (SIGN) and the Scottish Medicines Consortium are key components of our organisation.