NATIONAL CLINICAL GUIDELINES HANDBOOK FOR QATAR

Healthcare Quality Department

National Clinical Guidelines Program

Issued on: 21st September 2023

المبادئ الإرشادية السريرية لدولة قطر
NATIONAL CLINICAL GUIDELINES FOR QATAR

وزارة الصحـــة العامـــة
Ministry of Public Health
State of Qatar • دولـــة قطـــر

Version History

Version	Prepared by	Reviewed by	Approved by	Date of next review
0.1	NCG team	Healthcare Quality Consultant	NCGPC	21st Sep 2028

Abbreviations

The abbreviations used in this guideline are as follows:

ACC	American College of Cardiology
AGREE II	Appraisal of Guidelines for Research & Evaluation II
ADA	American Diabetes Association
CDSR	Cochrane Database of Systematic Reviews
CG	Clinical Governance
CPD	Continuing Professional Development
DHP	Department of Health Professions
GDG	Guideline Development Group
HSPA	Health System Performance Assessment
IDSA	Infectious Disease Society of America
MOPH	Ministry of Public Health
NCG	National Clinical Guidelines
NCGPC	National Clinical Guidelines & Pathways Committee
NHS	National Health Strategy
NICE	National Institute of Health & Clinical Excellence
NLM	National Library of Medicine
PIL	Patient Information Leaflet
PIPOH	Population, Intervention, Professions, Outcomes and Healthcare system
QNL	Qatar National Library
SIGN	Scottish Intercollegiate Guidelines Network

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1. Introduction

In accordance with Qatar's National Vison 2030 and the National Health Strategies, the establishment of National Clinical Guidelines Program represents a significant opportunity to enhance and advance approaches towards continuous quality improvement and excellence in health care.

The Ministry of Public Health (MoPH) believes that the National Clinical Guidelines (NCGs) have significant potential to make sustainable improvements to the quality of care at a national level by reducing unwarranted variations in clinical practice, thereby improving the overall value from the healthcare system. Through the NCG program, high-quality evidence-based guidelines are developed and localized to Qatar's culture, customs, practice and formulary.

This NCG Handbook for Qatar is issued by the Healthcare Quality Department at the MOPH to provide a comprehensive guide on the processes and methods used to develop and update NCGs, upgrade organisational guidelines to national level, and promote the implementation of NCGs. The processes and methods described in this manual are aligned with internationally recognized guideline development methodologies, accepted criteria of quality described in the AGREE II instrument, and primary methodological research and evaluation undertaken by the NCG program team.

This handbook is intended to be primarily used by:

- Staff involved in the development and updating of clinical practice guidelines in healthcare organisations.
- Subject Matter Experts (SMEs) involved in guideline development, such as Guideline Development Group (GDG) members.
- Stakeholder organisations and end-users of national guidelines.
- National Clinical Guidelines & Pathway Committee (NCGPC) members.
- Other guideline related committees/working groups.
- It is also likely to be of interest to broader audience such as payers/insurance companies.

This handbook provides guidance on the following areas:

- NCG Program Overview & Governance.
- Developing National Clinical Guidelines.
- Updating National Clinical Guidelines.
- Upgrading Organisational Guidelines to National Level.
- Retirement of Guidelines.
- Promoting the Implementation of Guidelines.

Any queries related to the use of this handbook should be addressed to the National Clinical Guidelines Team at MoPH at the email address: clinicalguidelines@moph.gov.qa.

2. NCG Program Overview & Governance

2.1 Program Overview

The NCG Program was established in 2015 by the Ministry of Public Health (MoPH) as part of the National Health Strategy (2011-2016) to achieve an integrated system of healthcare. It continues in alignment and collaboration with National Health Strategies, programs and initiatives to develop and update national guidelines as per health system needs. The goal of the program is to provide clinical practice guidelines as a tool to drive adoption of best practice recommendations to treat patients across Qatar, measure compliance with guideline recommendations and their impact on patient outcomes, in collaboration with relevant entities.

The NCGs aim to standardize, whenever possible, the management and treatment options received by patients across Qatar's healthcare system so that outcomes and resources may be optimized. Through this program, the MoPH works on localizing evidence-based practices, making them relevant to the culture, customs, practice and context of Qatar.

The NCGs and its associated Patient Information Leaflets (PILs) are published at the MoPH, Qatar National Library (QNL) and Guidelines International Network (G-I-N) websites and other relevant partners.

To enhance the implementation and uptake of the NCGs by healthcare practitioners, the following activities are executed:

- Outreach visits and awareness campaigns.
- Engagement activities with relevant stakeholders.
- Education on the NCG key recommendations (i.e., National Clinical Guidelines Education Program).
- Meetings with key entities such as leads of national programs & initiatives, policy makers, academic institutions, quality departments in healthcare organisations.

The NCGs and its relevant PILs can be accessed via the link below:
https://www.moph.gov.qa/english/OurServices/eservices/Pages/Clinical-Guidelines.aspx;

2.2 Program Governance

The governance of the NCG program comprises of three main entities as depicted in Figure 1 below:

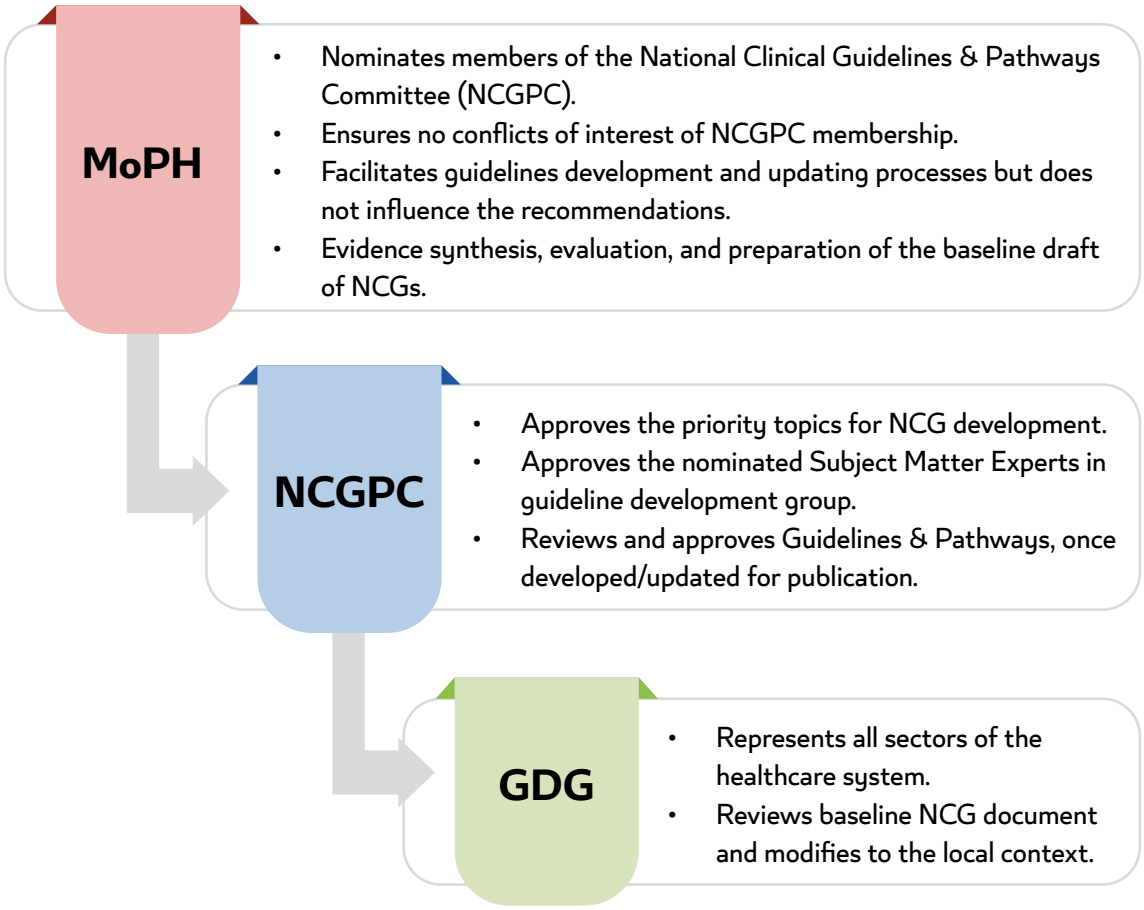

Figure 1: NCG program governance

The roles and responsibilities of each entity is described in the sections below:

2.2.1 Ministry of Public Health

The NCG program is led by the MoPH. A dedicated team: the NCG program team is assigned to manage the program and provide support to the NCGPC.

2.2.1.1 NCG Program Team

The NCG program team is responsible for:

- Identification of topics for new guideline development in coordination with the leads of national programs and initiatives.
- Determination of the scope of guideline, in collaboration with senior clinician/s within the main healthcare organisations according to the topic.
- Management of the nomination and selection of GDG members, in collaboration with the NCG program focal points in healthcare organisations. including the collection of biographies

and conflict of interest declarations.

- Recruitment and empowerment of patient/care giver to participate in the NCG development activity.
- Reviewing and synthesizing evidence to prepare the baseline drafts for new guidelines and update of existing guidelines.
- Management and facilitation of guideline development workshops/meetings.
- Finalisation of the NCGs in collaboration with the GDG members.
- Submission of the guidelines to NCGPC for approval prior to publication at MoPH website.
- Liaison with Public Relations department for designing, branding and publication of the NCGs.
- Development of PILs in English and Arabic languages.
- Establishment and execution of Continuing Professional Development (CPD) education activities on guideline recommendations, in collaboration with Department of Health Professions.
- Communication and collaboration with NCG related stakeholders to support the uptake and adoption of NCGs by healthcare organisations and professionals.
- Addressing any feedback related to the NCG program.

2.2.2 National Clinical Guidelines & Pathways Committee

The National Clinical Guidelines & Pathways Committee (NCGPC) was established by the ministerial decree in 2016. The role of this committee is to provide oversight and quality assurance to the NCG program and to contribute to its success and sustainability. It is also responsible to provide an independent review of the guideline document. This role is aligned with the best practices of the ADAPTE Framework*.

The members of this committee are nominated based on their expertise in guideline development, and the importance of their parent organisation as a stakeholder within the healthcare system of Qatar. The membership of the NCGPC is comprised of 12 members from the major healthcare organisations, including public, private and academic institutions.

The NCGPC is responsible to execute the following activities:

1. Approve the priority topics for which NCGs will be developed.
2. Approve the nominations of GDG members for the relevant guideline topics.
3. Review and approve the final version of the NCGs for publication.
4. Oversee the implementation, monitoring, and uptake of NCGs.
5. Provide guidance on the alignment of the NCG program with National Health Strategies, major healthcare programs and initiatives for an effective integration.
6. Provide guidance in case of possible conflict or incompatibility with other National Health Strategy projects and initiatives.

2.2.3 Guideline Development Groups

Guideline Development Groups (GDGs) are comprised of a panel of multidisciplinary Subject Matter Experts (SMEs) who are healthcare practitioners nominated by different healthcare organisations in the country, according to the scope of the guideline.

* The ADAPTE Collaboration (2009). The ADAPTE Process: Resource Toolkit for Guideline Adaptation. Version 2.0. Available from: http://www.g-i-n.net;

The GDG also includes an appropriately vetted patient/caregiver who has experience with receiving or providing care to the patient with a condition relevant to the guideline topic under development.

During the formulation of GDG group, the MoPH ensures adequate representation from all sectors of healthcare provider organisations (public, semi-governmental, private sector, and academic institutions) operating in the State of Qatar.

The specific functions of the GDG members include:

- Discuss, modify and localise the baseline guideline document to ensure its applicability to the local context of Qatar.
- Identification of appropriate process and outcomes metrics relevant to the guideline topic under development.

3. New NCG Development

The outline stages for a new NCG development, followed under the NCG program are broadly aligned with the ADAPTE Framework for guideline adaptation, recommended by the Guidelines International Network. These stages are as follows:

1. Topic selection.
2. Determination of scope.
3. Guideline Development Group (GDG) member identification.
4. Baseline NCG development.
5. Patient/caregiver representatives' involvement.
6. NCG development workshop/s.
7. Post-workshop editing and incorporation of patient/caregiver's feedback.
8. Pathway development.
9. Patient Information Leaflet development.
10. National Clinical Guidelines & Pathways Committee (NCGPC) approval.
11. NCG Publication.

Each of these stages is described in the subsequent sections with description of the processes followed during each stage. Process flow diagram of the processes used, is included in Appendix A.

3.1 Topic Selection

Topic selection is based on the following considerations:

- **The total number of new NCGs which can be developed in a given year.**
  - The availability of resources for NCG development will constrain the total number of NCGs that can be developed in a given year.

- **MoPH Strategic priorities for NCG development.**
  - Does the MoPH have a pre-existing stated priority in improving the management of a particular disease or issue?
  - Alignment with MoPH strategic priorities will ensure the NCG development contributes to the overall goals of the MoPH.

- **High prevalence of the disease.**
  - Is the disease considered to be a common problem in Qatar?
  - If not, is developing NCG the best possible use of resources?

- **High or increasing incidence of the disease.**
  - Is the disease likely to become a common problem in the near future?
  - A disease may be rare now but if the incidence is high or increasing, it may become a problem later. Therefore, addressing prevention and early diagnosis may help reduce the incidence of the disease and its complications.

- **High costs associated with suboptimal management of the disease.**
  - Inappropriate disease management results in wastage within the healthcare system. Consequently, improvements in care can lead to overall savings or redirection of resources.

- A relative or quantified understanding of the cost burden associated with inappropriate management of a disease, will help to prioritise competing topics.

- **High degree of unwarranted variation in the care of patients with the disease.**
  - Is there a considerable variation in the quality of care and outcomes related to the disease?
  - A high degree of variation in health outcomes implies a suboptimal healthcare system and could be addressed through a number of interventions - of which NCGs may be one.

- **The likelihood that NCGs will influence the care of patients with the disease.**
  - Is a national-level guideline the best tool to influence care of the patient with the disease under consideration?
  - If care is only provided by a selected group of experts at a particular facility, does a guideline need to be issued across the whole country?

- **The likelihood that NCGs will support ethical and legal decisions.**

The above considerations are discussed internally and with stakeholders from across the healthcare system to derive a shortlist of disease condition topics proposed for NCG development. This shortlist is presented to the NCGPC, and a decision is documented by the committee on the selected topics to develop NCGs in a given year.

Any proposal submitted for NCG development is scrutinised for the level of performance of the relevant HSPA indicator of the disease condition/proposed topic under question.

3.2 Determination of Scope

Each NCG topic can be very broad in the range of issues it could potentially address. Therefore, to ensure that the process of baseline NCG development is as efficient as possible, it is necessary to define the desired scope of the NCG at the outset of the process.

The ADAPTE Framework recommends using the Population, Intervention, Professions, Outcomes and Health care system (PIPOH) framework to define the purpose and parameters for guideline adaptation, whereas other guideline groups recommend using the PICO(T) search strategy to define questions and parameters of scope in de novo development of guidelines.

In the context of NCG program, the scope of the NCG under development is defined with consideration to the criteria given in the table below:

Criterion	Consideration
Population	• The population to be addressed by the NCG. • For example, all children with diabetes between the age of 5-18 years.
Healthcare setting	• Will the NCG focus on improving prevention, screening, primary care or secondary care?
Professionals to be addressed	• Which professional groups are considered as the primary audience for the NCG?
Categories of disease	• Which subtypes of disease should be covered within the NCG? • Which will be mentioned but not discussed?
Interventions	• Which investigations and treatments will be addressed? • Which non-standard interventions should be explored for evidence of benefit?

Table 1: Scope Criteria.

3.3 GDG Member Identification

Nominations for GDG membership is sought from the stakeholder organisations in Qatar. The stakeholder organisations invited to nominate GDG members represent a balance between the public, private and semi-governmental sectors of the healthcare system, to ensure acceptance of the final NCG as a national-level document. Organisations not involved in the care of patients with the disease in question can be excluded.

At a minimum, public and major private healthcare provider organisations are invited to nominate GDG members to contribute to the NCG development process.

Nominated GDG members are required to provide a curriculum vitae or biography, outlining their professional qualifications, and provide a signed Conflict of Interest (COI) declaration form. The NCG team then selects 12-17 GDG members, based on the following attributes:

- **Representative:**
  - The final GDG group ideally represents all sectors of the healthcare system without over-representation of either public or private sectors.
  - However, representation should also consider the healthcare setting in which care is provided. For example, if NCG is to be developed for a disease which will only be managed within 2-3 institutions, then only those institutions need to be included in the GDG group membership.
- **Multidisciplinary:**
  - At a minimum, the GDG group includes senior doctors, nurses, clinical pharmacists, and other allied health professionals having clinical experience in Qatar.
  - Other disciplines should also be considered for inclusion, according to the scope of NCG topic.
- **Clinically Expert:**
  - Except for primary care physicians, GDG members must have expertise within the clinical speciality and sub-specialities relevant to the care of patients with the disease topic in question.

Members who do not respond to efforts to engage them, or who do not provide a curriculum vitae/ biography and Conflict of Interest declaration, are excluded from the NCG development process.

3.4 Baseline NCG Development

The development of a baseline NCG document occurs in the following stages:

1. Literature search.
2. Literature appraisal.
3. Evidence synthesis and drafting of the baseline document.

Each of the above-mentioned stages has been described in the following subsections.

3.4.1 Literature Search

Using the name of the guideline topic as a search term, the following databases, but not limited to, are systematically queried:

- PubMed.
- Google Scholar.
- Cochrane Database of Systematic Reviews (CDSR).
- bioRxiv.

The results of the above database searches are then filtered using the following criteria:

- Duplicate citations and articles related to non-human subjects are excluded.
- Articles presented in languages other than English are excluded.
- Articles more than 5 years old are excluded (unless the article is a guideline, meta-analysis or systematic review, for which no more recent paper is available).
- Books more than two years old, or not available online, are excluded.
- Articles other than guidelines, meta-analyses, systematic reviews, randomised controlled trials or observational studies, are excluded.

The shortlisted results are further filtered using the disease topic in combination with search tags generated from the agreed scope of the NCG.

3.4.2 Literature Appraisal

The AGREE II tool is used to assess the quality of guidelines, except where the guideline has been developed by an organisation which is recognised to employ a rigorous evidence-based methodology for guideline development. Such bodies include the National Institute for Health and Clinical Excellence (NICE), The Scottish Intercollegiate Guidelines Network (SIGN), American Diabetes Association (ADA), American College of Cardiology (ACC), Infectious Disease Society of America (IDSA) etc. Systematic reviews and meta-analyses adhering to the Cochrane Review methodology are also accepted as high quality, without further appraisal.

Critical appraisal of all other studies is undertaken using the following appraisal questions:

1. Has the study been subject to peer-review?
2. Are there declared conflicts of interest that could bias the conclusions?
3. Is the research method appropriate to the hypothesis being tested?
4. Is the study sufficiently large to detect the difference under consideration?
5. In controlled studies:
    a. Was the study randomised, single blind or double blind?
    b. Were control and experimental groups similar?
6. In observational studies:
    a. Were the cohort/case/control groups representative of the population under consideration?
    b. Was the follow-up period appropriate for the issue under consideration?
7. Were outcome criteria valid?
8. Have appropriate statistical analyses been employed?
9. Has a post-hoc subgroup analysis been performed to detect a difference between groups?
10. Are the results clinically significant?
11. Is the conclusion drawn logically from the results?

Following the appraisal process, the references to be used in the baseline draft are assigned a level and grade indicating the type of study underpinning the recommendation and the degree of strength of the recommendation.

To achieve transparency and simplicity of the recommendations, the GRADE system is implemented with slight modification, where the low and very low categories are combined. The following evidence hierarchy is used to grade the level of authoritativeness of the evidence used to make the recommendations within the National Clinical Guidelines.

- **Level 1 (L1):**
  - Meta-analyses of randomized controlled trials.
  - Randomized controlled trials.
- **Level 2 (L2):**
  - Meta-analyses of observational studies.
  - Observational studies, examples include:
    - Cohort studies with statistical adjustment for potential confounders.
    - Cohort studies without adjustment.
    - Case series with historical or literature controls.
    - Uncontrolled case series.
- **Level 3 (L3):**
  - Expert opinion.
  - Case reports.
  - Statements in published articles or textbooks.
  - Unpublished data, examples include:
    - Large database analyses.
    - Written protocols or outcomes reports from large practices.

Recommendation Grades: In order to give additional insight into the reasoning underlying certain recommendations and the strength of recommendation, the following recommendation grading is used:

- **Recommendation Grade A (RGA):** Evidence demonstrates at least moderate certainty of net benefit from the recommendation.
- **Recommendation Grade B (RGB):** Evidence is insufficient, conflicting, or poor and demonstrates an incomplete assessment of net benefit vs harm; additional research is recommended.
- **Recommendation Grade C (RGC):** Evidence demonstrates potential harm that outweighs benefit; additional research is recommended.
- **Recommendation of the GDG (R-GDG):** Recommended based on the clinical experience of the Guideline Development Group members.

3.4.3 Evidence Synthesis and Drafting of Baseline Document

After implementing the eligibility criteria, a final shortlist of documents to be included in the NCG development process are reviewed and their principal recommendations are listed. In the event of disagreement between sources on a particular recommendation, the recommendations of the more authoritative source are included. Where two authoritative sources are in conflict on a particular recommendation (e.g. NICE and ADA guidelines), then both recommendations are included in the draft NCG, and left for discussion and agreement with the GDG members.

The general structure of the NCG is designed to provide background information on the disease topic and thereafter follows the standard medical consultation model. However, the final document structure depends upon the context of the disease topic and the scope agreed with the lead GDG member(s) and is thus subject to change.

A baseline guideline draft is prepared using the below template which is adapted to the context of the individual topic and the agreed scope (any change in the template of the guideline is subject to NCGPC approval):

1. **Information about the guideline:**
   - 1.1. Objective and purpose of the guideline.
   - 1.2. Scope of the guideline.
   - 1.3. Editorial approach.
   - 1.4. Sources of evidence.
   - 1.5. Evidence grading and recommendations.
   - 1.6. List of GDG members.
   - 1.7. List of NCGPC members.
   - 1.8. Responsibilities of healthcare professionals.
2. **Pathway Algorithm**
3. **Key Recommendations of this Guideline**
4. **Background Information:**
   - 4.1. Definition.
   - 4.2. Epidemiology (if data are available).
   - 4.3. Subtypes of the disease (if relevant).
   - 4.4. Aetiology.
   - 4.5. Risk Factors.
   - 4.6. Prognosis.
5. **Presentation**
6. **Clinical Assessment**
   - 6.1. History.
   - 6.2. Examination.
   - 6.3. Investigations.
7. **Primary Care Management**
8. **Referral to Specialist Care (if applicable)**
9. **Secondary Care Management**
10. **Key Considerations for Patient Preferences**
11. **Performance Measures**
12. **References**

Appendix: Detailed description of the literature search

Acknowledgements.

Following the development of the baseline guideline document, the draft guideline is sent to the GDG members 10 working days ahead of the date of NCG development workshop to allow sufficient time for the members to review the baseline document.

3.5 Patient/Caregiver Representatives' Involvement

All NCGs may include at least one patient/caregiver representative. Patient/caregiver representative/s provide insights into a patient's perspective of the care received and may recommend improvements to the system and processes of care undertaken. Patient/caregiver representative/s are individuals who either experience, or care for a person, with the disease condition relevant to the guideline topic.

Since the guideline development workshops are conducted in English and the NCGs are issued in English, the patient/caregiver representative having a good understanding of English language is preferable. Where the patient/caregiver feels more comfortable with a language other than English, an interpreter is considered, provided patient's confidentiality is respected at all times.

3.5.1 Preparation of Patient/caregiver representative for the workshop

Prior to the guideline development workshop, the patient/caregiver representative who has been nominated by a partner organization or a GDG member to participate in the NCG development is invited to meet with the NCG program team to discuss his/her contribution to the NCG development process. The discussion covers the following:

- Overview of the NCG program.
- NCG development process and actions required of the patient/caregiver representative.
- Overview of how NCG workshop will run and how he/she can contribute.
- Patient/caregiver's experience of receiving healthcare in Qatar.
- Areas for improvement in the system, as suggested by patient/caregiver.
- Feedback on generic patient consideration section in the NCG document.

The above is necessary to help ensure the patient/caregiver representative understands how the process will proceed and how he/she can contribute to it. The discussion also ensures that patient/caregiver representative's opinions are structured prior to the workshop.

3.6 NCG Development Workshops

3.6.1 Workshop Sessions

The NCG development workshop/s are generally held at the MoPH head office from 8:00 am to 2:00 pm with short breaks at regular intervals, however, virtual workshops are also considered. The workshops are facilitated by the NCG team and includes the GDG members and the patient/caregiver representative.

The GDG members whose contributions are limited to specific sections of the NCG document, or who are unable to attend on the workshop date, are sent the baseline NCG document for their asynchronous review and feedback. GDG members are cited as authors for the NCG. Other contributor's names are listed within the acknowledgment section of the document.

During the workshop, the GDG reviews the entire NCG document, section by section, ensuring adequate opportunity to discuss the content of the document, and inclusion of the member's inputs. Any changes in the document are captured using track changes function in Microsoft Word for later review and editing. If one workshop session is inadequate to review the entire document, further workshops are arranged until the entire document has been thoroughly reviewed and discussed.

Careful consideration is given during the localisation of the guideline to avoid significant alteration in the evidence on which the guideline is based.

3.6.2 Barriers for NCG implementation in day-to-day clinical practice

During the workshops, potential barriers that may influence the NCG implementation in day-to-day clinical practice are taken into consideration and documented for future consideration and action by the NCG team or the MoPH senior management and stakeholder organization/s.

3.6.3 Performance Measures

Key process and outcome measures proposed within the baseline NCG are discussed with the GDG members. The selected measures are then discussed with the MoPH- Health Service Performance Assessment (HSPA) team to determine the feasibility of being regularly reported by provider organisations and to measure compliance with NCG recommendations.

3.7 Post-workshop Editing and Incorporation of Patient/Caregiver's Feedback

Following the conclusion of all workshop sessions, the NCG document is updated based on the inputs and feedback received by the GDG. Feedback/comments from the patient/caregiver representative are also incorporated within the patient preferences section of the NCG document..

The Key Recommendations Section is drafted by summarising the main recommendations. The post-workshop draft version of the NCG document is circulated to all GDG members via email for their review/comments and approval.

The review cycle continues until all the GDG members have agreed to the content of the guideline. Each GDG member is required to provide his/her individual approval via email to the NCG team.

3.8 Pathway Development

Upon securing approval from all the GDG members, pathways are created.

The pathway graphically illustrates the main sections in the guideline that are made interactive, colour coded and hyperlinked to facilitate navigation across the document, and to show transition from primary to specialist care in the patient's care journey and indicates the key decisions in care management.

The following principles are used in the development of NCG pathways:

- 5 standard Information Nodes are repeated across the top of each page of the algorithm:
  - Information about this Guideline.
  - Background Information.
  - Key Recommendations of the Guideline.
  - Abbreviations used in the Guideline.
  - Performance Measures.
- Nodes are colour coded as follows:
  - Grey Nodes: Information.
  - Green Nodes: Primary Care.
  - Blue Nodes: Secondary/Specialist Care.
  - Red Nodes: Red Flags/Emergency Management.
  - Yellow Nodes: Self-Care.
- The pathway branches reflect the key decisions made in the care of a patient.
- The sequence of the pathway nodes from top to bottom, follows the sequence in which steps in the management of a patient are taken.
- Where parallel processes occurred, these are reflected in branching of the pathway.
- The main care management path is centrally placed with branches to either side.
- A single chain of nodes without branching of any kind is avoided.
- Where multiple branches converge onto a single node, arrowheads are used on connection lines to improve clarity.

A sample pathway demonstrating the above principles is shown in the figure below:

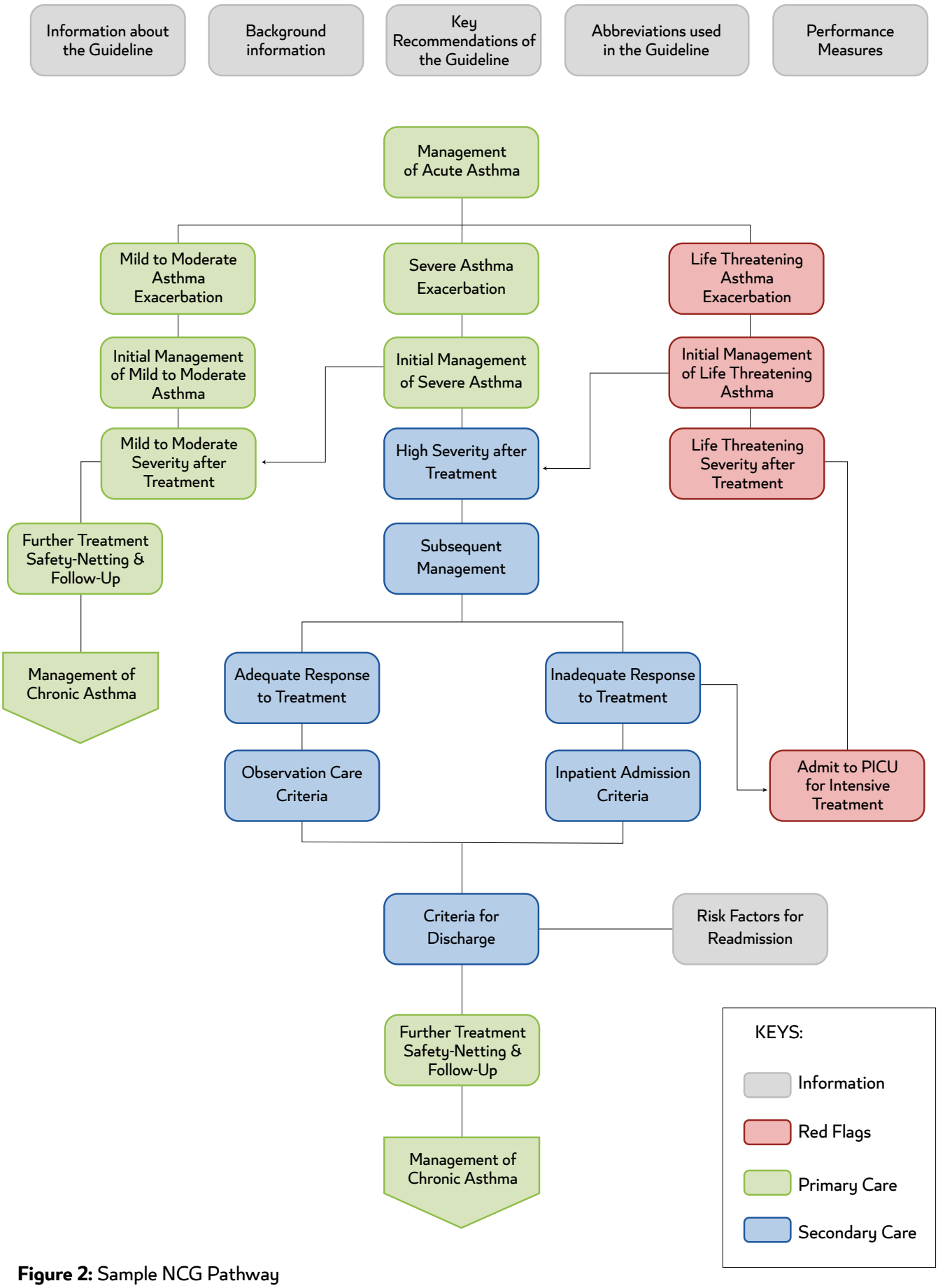

Figure 2: Sample NCG Pathway

After embedding the pathway within the NCG document, it is re-circulated to the GDG for their review and approval.

3.9 Patient Information Leaflet Development

Once the NCG content is approved, a Patient Information Leaflet (PIL) is developed. This leaflet reflects the NCG content in a simple layman's language and is reviewed by the patient/caregiver. Any feedback suggested by the patient/caregiver is incorporated within the leaflet. Once the leaflet is endorsed by the patient/caregiver, it is translated into Arabic language. Both English and Arabic leaflets are edited by the translation team at MoPH prior to publication at the MoPH website, where they can be downloaded by patients or clinicians.

A standard copyright statement (Appendix C) is included on the back page of each leaflet. Samples of PILs are shown below:

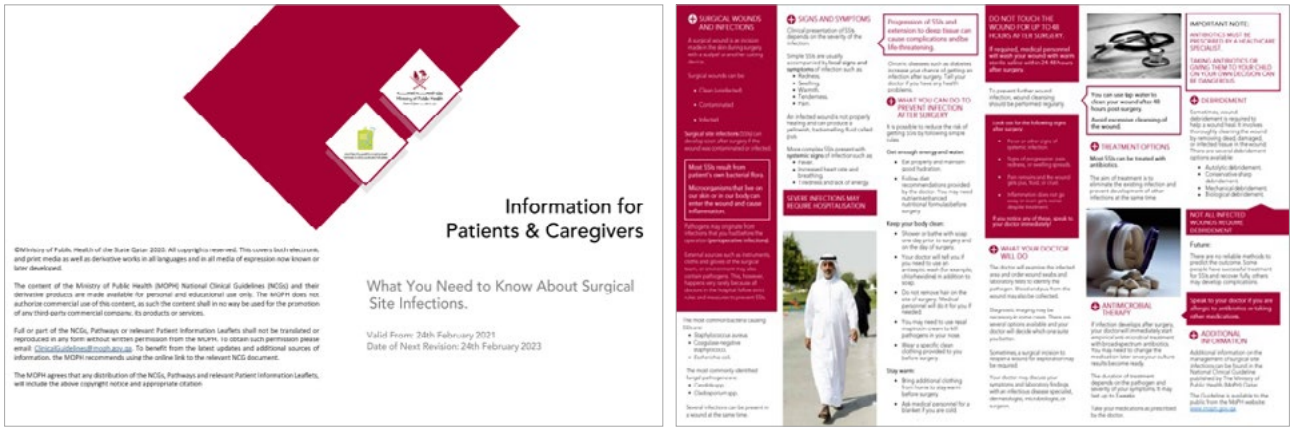

Figure 3: English Patient Information Leaflet.

Figure 4: Arabic Patient Information Leaflet.

3.10 NCGPC Approval

Upon receipt of approvals by all GDG members, the final version of the NCG document is sent to the NCGPC for their review and approval prior to its publication at MoPH website. Any feedback raised by the NCGPC requires further discussion between the NCGPC and the senior GDG member(s) to ensure an agreement is reached on the final document.

3.11 NCG Publication

Once the NCGPC has provided its approval of the NCG document for publication, a thorough quality check is undertaken by the NCG team to ensure the following are in place:

- The date of publication and date of next review on the title page and in the footer on each page, has been set.
- The Version Control table has been updated to remove the history of drafts and includes the publication version of the document.
- Hyperlinks in the pathways and the relevant subsections of the guideline have been created and tested.
- A view pathway button has been added on specific pages of the document.
- Copyright statement is included on the back page of each NCG (Appendix C).

Once the NCG document is approved by the NCGPC, it is sent to the MoPH Public Relations team for branding and publication at the MOPH website and other relevant partners websites e.g., Guidelines International Network (G-I-N) and Qatar National Library (QNL).

Following publication, the NCG program stakeholders are informed and invited to provide their feedback using the clinicalguidelines@moph.gov.qa email address. Feedback related to the guideline content is discussed with the senior GDG member/s. Other relevant feedback is collated by the NCG team for consideration in the next guideline revision.

4. Updating National Clinical Guidelines

The standard validity period of every NCG is set at five years from the date of NCGPC approval.

If there is a change in the evidence that necessitates updating the NCG within the five years cycle, an ad-hoc updating is conducted for the relevant section and the guideline is republished with the same validity period.

In an event of a major change in the healthcare service design, the guidelines will be re-evaluated to ensure guideline recommendations can be implemented in the best possible way.

The outline stages for updating existing NCGs, are broadly aligned with the ADAPTE Framework for guideline adaptation, recommended by the Guidelines International Network (G-I-N). The stages for updating the NCG are as follows:

1. Confirming the GDG availability.
2. Evidence synthesis and updating the recommendations.
3. Contacting or recruiting patient/caregiver representative for NCG review.
4. NCG updating workshop/s.
5. Updating the Pathway.
6. Updating the PIL.
7. NCGPC approval.
8. NCG publication.

Each of these stages has been described in the subsequent sections. Process flow diagram of the processes used, is included in Appendix B.

4.1 Confirming the GDG Availability

The GDG members who have participated in development of the previous version of the NCG document, are contacted to ensure that they are available and willing to contribute to the updating process.

Should a need arise to replace a member who have either left the country/organisation or unable to participate for any other reason, replacement is sought from the focal points within the relevant stakeholder organisation/s.

All GDG members are required to sign a COI declaration form. This form is required for each NCG update cycle.

The GDG members who do not respond to efforts to engage them, or who do not provide a signed COI form, are excluded from the NCG updating process after informing the relevant organisation for a potential replacement.

GDG members who have left the country are excluded from the update process. The GDG members listed in the NCG document includes those participants who have been involved in the current updating process.

Note: Based on an official letter from the employer and as per the MOPH rules, any GDG who has professional misconduct or legal issues is excluded from reviewing the NCG.

4.2 Evidence Synthesis and Updating the Recommendations

Each reference cited in the previous version of the relevant NCG document is systematically reviewed to determine whether a more recent version is available. A broad review of the wider evidence that is available after the publication date of the NCG, is also undertaken to ensure that the guideline recommendations are up-to-date and there is no other authoritative evidence available that offers a contradictory recommendation to the NCG.

The following databases (but not limited to) are systematically queried, using the similar approach described in section 3.4.1:

- PubMed
- Google Scholar
- Cochrane Database of Systematic Reviews (CDSR)
- bioRxiv

Literature appraisal, levelling and grading is conducted in the same manner as described in Section 3.4.2.

After implementing the eligibility criteria, final recommendations to be included in the updated version of the NCG are incorporated in the document. In the event of disagreement between sources on a particular recommendation, the recommendations of the more authoritative source are included. Where two authoritative sources are in conflict on a particular recommendation (e.g. NICE and ADA guidelines), then both recommendations are included in the draft NCG, and is left for discussion and agreement with the GDG members.

The new recommendations are incorporated using the track changes function in MS Word and its appropriate reference is cited in the reference list. Where a more recent citation is available for an unchanged recommendation, the newer reference is attributed to the relevant recommendation.

Following the revision of the entire NCG document, as described above, an updated version of the NCG document is circulated to the GDG members for their review and approval of the content.

4.3 Contacting Patient/Caregiver Representative/s for NCG Review

The patient/caregiver representative who has contributed during the previous edition of the guideline is invited to review the patient preferences section of the updated document. If the patient/caregiver representative is no longer available to participate in the review process, a new patient recruitment process is implemented as described in the NCG development process.

The aim of inviting patient/caregiver representative is to ensure patient's feedback is captured. Patient/caregiver comments are incorporated in the document using track change function and is sent back to them by email for confirmation.

4.4 NCG Updating Workshop/s

Updating the recommendations of the NCG can be either via email review or virtual/face-to-face workshop.

During the email review, the updated NCG draft document is sent to the GDG members via email for their review and feedback. Any changes to content from the prior edition are highlighted by the GDG members using the track changes in MS Word to capture the requested changes or comments.

All the GDG members are expected to either provide their approval of the revised document or return their comments and/ proposed amendments in the updated document for consideration and incorporation in the final draft.

Following the receipt of feedback from all GDG members, the document is finalized by the NCG team to ensure all the requested changes are incorporated.

In instances of conflicting feedback on the revised NCG document where a consensus cannot be adequately reached through email communication, a workshop session (face-to-face/virtual) is planned and held to agree on the debated point/s.

Any changes to the document at this stage is captured using track change function and the document is sent back to the entire group for their review and approval.

Each GDG member, including patient/caregiver representative, is required to provide individual approval via email to the NCG team.

4.5 Updating the Pathways

Upon securing approval from all GDG members, the pathway is revised and updated as needed. Hyperlinks are created between the steps in the pathway and the text within the NCG document related to the step is described. The final pathway is embedded within a PDF version of the updated document.

Any feedback received from GDG members is incorporated within a new version of the pathway and is redistributed to all GDG members for their approval.

4.6 Updating the Patient Information Leaflets

Following approval of the NCG document by all GDGs, the existing PIL is reviewed and updated as necessary. The updated leaflet is shared with the patient/caregiver representative for review and feedback (as per the preferred language; Arabic/ English).

Any feedback suggested by the patient/caregiver representative is incorporated in the leaflet and is sent back for confirmation. Both English and Arabic leaflets are reviewed by the translation team at MOPH prior to its publication at the MOPH website.

4.7 NCGPC Approval

Once the updated NCG document is approved by the entire GDG, it is sent to the NCGPC for their review and approval prior to the publication at MOPH website and other partner websites.

Any feedback provided by the NCGPC is discussed with the senior GDG member(s) to ensure an agreement is reached on the final document. If significant changes are required in the NCG document, the GDG members are expected to review and approve these changes, followed by a final approval to be sought from the NCGPC.

4.8 NCG Publication

Once the NCG document is approved by the NCGPC, it is sent to the MOPH Public Relations team for branding and publication at the MOPH website and other relevant partners websites e.g., Guidelines International Network (G-I-N) and Qatar National Library (QNL).

5. Upgrading Organisational Guidelines to National Level

Several healthcare organisations across Qatar develop their own local organisational guidelines, which can be upgraded to national level.

When receiving organizational guidelines/document to be upgraded to the national level, the document is reviewed based on NCG program established process using the Agree II instrument available at http://www.agreetrust.org.

The AGREE II instrument is applied by minimum two independent reviewers to assess the quality of the submitted document/organisational guideline. The document is enhanced based on the score for each domain, in addition to all other NCG program's requirements and standards.

Original authors of the submitted document are considered within the GDG group along with representation of multidisciplinary specialties from across the health sector.

All other NCG development processes described in Section 3 and 4 are implemented.

6. Guideline Retirement

For any guideline that is being considered for retirement, the Retirement Scoring System described in the below Table 2 is implemented.

The Decision Factors listed in the table are rated on a scale of 1-5, based on available information.

1. The corresponding Weighting Formula in the table below is then applied to each Rating Score.
2. The Resulting Score is thus calculated for each Decision Factor and summated to provide a Total Weighted Score.

Using this Retirement Scoring System will ensure the resulting Total Weighted Score for any given guideline will always fall within the range of 144 – 400. Guidelines that fall at the end of the scale are considered for retirement.

Decision Factor	Rating Score (x) (1=Low;5=High)	Weighting Formula	Resulting Score
The political/strategic priority of the guideline topic.		$(x+5)^2$	
The degree of compliance of clinicians with the guideline.		$(x-11)^2$	
The relative prevalence of the guideline topic in Qatar.		$(x+5)^2$	
The relative incidence of the guideline topic in Qatar.		$(x+5)^2$	

Table 2: Scoring system for NCG retirement.

7. Promoting the Implementation of National Clinical Guidelines

To enhance the uptake and adoption of NCGs by the healthcare organisations and professionals, the NCG team conducts various activities at different levels, such as:

- Awareness campaigns and outreach visits to the healthcare organisations.
- Public and social media advertisements.
- Emails to individual clinicians via the Department of Health Professions.
- Meeting with clinicians in the clinical rounds.
- Meeting with National Leads/ senior clinicians to identify barriers for implementation.
- Publication of guidelines & PILs at MOPH and partner websites.
- NCG Education Program.
- Presenting the NCGs at different national and international forums.
- Cascading the NCGs within CPD programs.
- Dissemination of information through the individual NCGPC members, Stakeholder Representative Groups and Program Champions.
- Engagement sessions with the provider quality departments.

Appendix A: Process Flow Diagram for New NCG Development

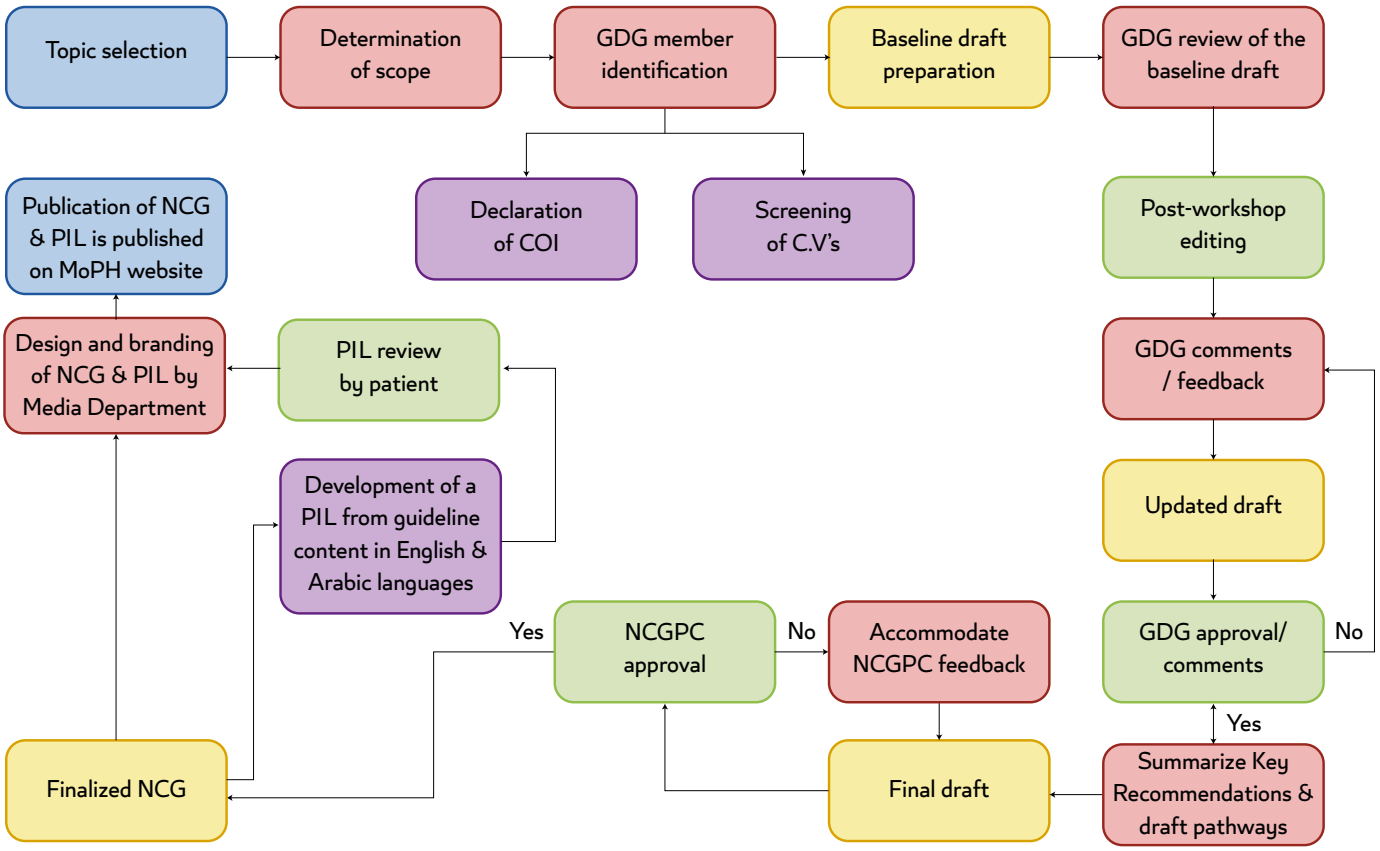

Fig A.1: Flow Chart for new NCG Development

Appendix B: Process Flow Diagram for Updating NCGs

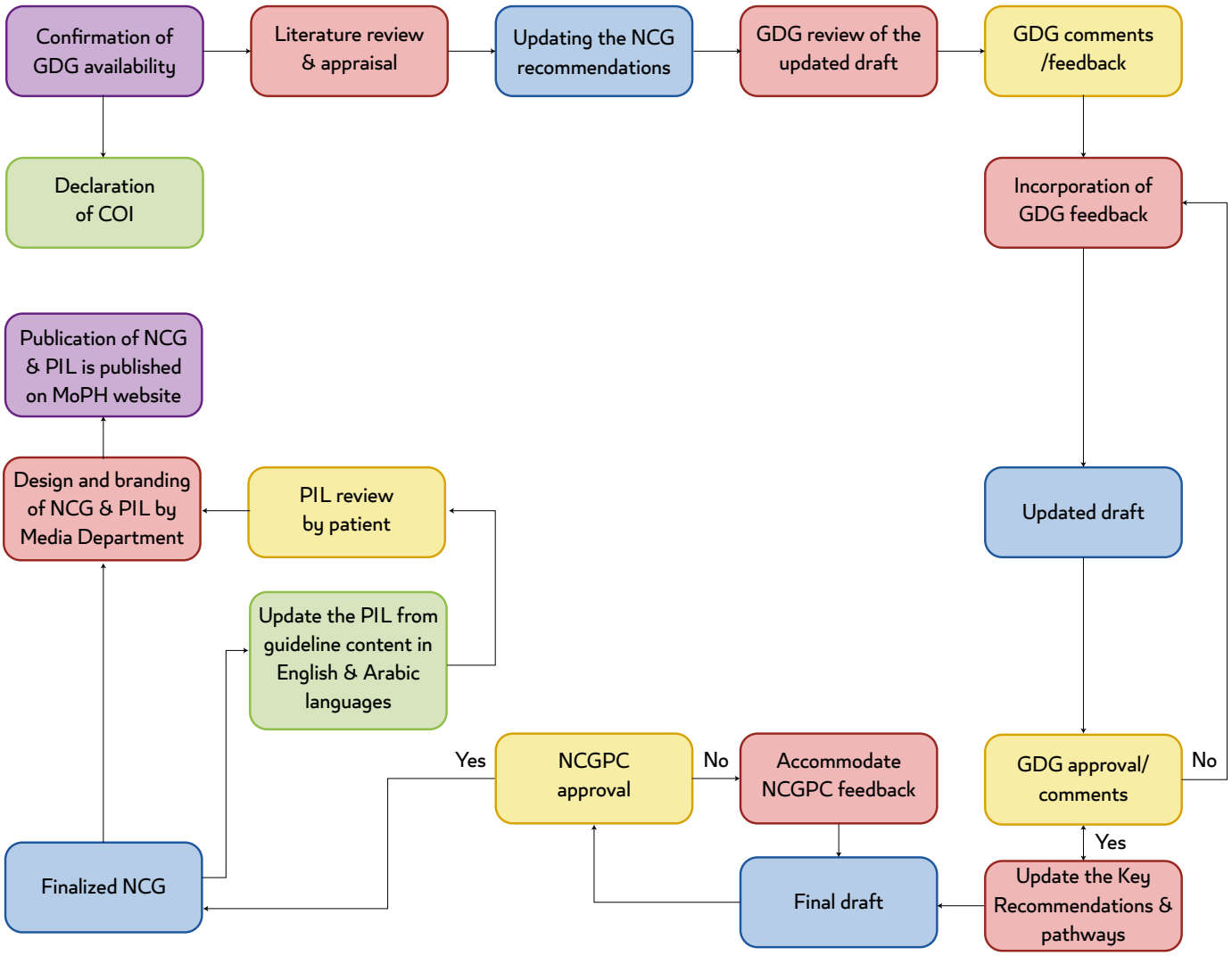

Fig B.1: Flow Chart for updating NCGs

Appendix C: Copyright Statement for NCGs and PILs

A standard copyright statement is included on the final page of each NCG and PIL that is developed by the MOPH. The text of the statement has been provided by the MoPH Legal Department and has been translated into Arabic for inclusion on Arabic PILs by the MoPH.

المبادئ الإرشادية السريرية لدولة قطر
NATIONAL CLINICAL GUIDELINES FOR QATAR

وزارة الصحـــة العامـــة
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