Summary report on the

Expert consultation on the development of a noncommunicable diseases emergency kit

WHO-EM/NCD/131/E

Cairo, Egypt
20 July 2016

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Regional Office for the Eastern Mediterranean

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1. Introduction

In response to often poorly coordinated medical supply donations, United Nations (UN) agencies and international nongovernmental organizations providing humanitarian assistance during emergencies have been working to develop standardized emergency health kits for field use. In the 1980s, the World Health Organization (WHO), with partner agencies, launched the Interagency Emergency Health Kit (IEHK) to provide a standard package of medicines and simple medical devices for humanitarian relief agencies to use in emergencies.

The IEHK aimed to meet the initial primary health care needs of a displaced population when medical facilities and the supply chain are disrupted or destroyed in the immediate aftermath of a natural disaster or during a conflict. Temporarily serving the health needs of 10 000 people for approximately three months, the IEHK was an important innovation in the care of people affected by emergencies. It has helped to improve health in a number of emergencies over the last three decades. However, it was not designed to respond to all health needs and has, over time, been revised to accommodate different morbidity patterns with the addition of new items and/or the development of new modules (for example, post-exposure prophylaxis and malaria modules).

In order to address this gap, and taking into consideration the high prevalence of noncommunicable diseases (NCDs) among people living in emergency/crisis-prone areas in the WHO Eastern Mediterranean Region, the WHO Regional Office for the Eastern Mediterranean, in consultation with other WHO offices and humanitarian partners, is developing an NCD emergency kit to complement the IEHK and be made available in the WHO catalogue for countries to order and for predeployment in regional humanitarian hubs. Similar to the IEHK, the kit will cater for the NCD-related health care needs of 10 000 people for approximately three months,

focusing on the provision of essential care at the primary health care level.

As part of this process, WHO Regional Office for the Eastern Mediterranean organized an expert consultation on 20 July 2016 in Cairo, Egypt, to review the structure and content of the draft NCD emergency kit, before field pilot deployment in selected emergency countries. The objectives of the expert consultation were to:

- review the structure and content of the draft NCD emergency kit;
- establish clear procurement processes; and
- agree on the emergency countries where the kit will be tested and the methodology to monitor and evaluate its use.

The meeting was opened by Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean. He informed participants that the meeting covered two important priority areas for WHO in the Region: emergency health care and noncommunicable diseases. The Regional Director further noted that the Region was host to more than half the world's refugees and internally displaced persons, as well as many countries with the highest rates of diabetes and NCD risk factors. He observed that the treatment of NCDs had often been missing in the emergency response, especially in current emergency situations, most notably in Iraq and Syria. Many refugees and internally displaced persons who had previously been diagnosed and were having treatment for NCDs needed continuation of their treatment in order to avoid life-threatening complications and suffering, he said. Dr Alwan explained that the unfortunate combination of high numbers of refugees with a high burden of NCDs, placed the WHO Regional Office in a unique position to create a regional emergency kit for NCDs as an addition to the existing global IEHK. He concluded by saying that at a later stage, other countries, regions and organizations

would be able draw on the Region's experience with the NCD emergency kit and adapt it to their own situations.

2. Summary of discussions

Content and structure of the NCD emergency kit

The kit is specifically designed to complement the IEHK. There should therefore be little, if any, overlap between the two. Only when the quantity of items in the IEHK is grossly inadequate, will quantities be increased in the NCD kit. This is usually the case when new indications for medicines are added. It also helps when the NCD emergency kit is used in the absence of the IEHK.

As mental health is a priority area for refugees, some core items for basic emergency care of mental, neurological and substance use conditions for non-specialist health care providers in humanitarian emergencies have been included. This follows the recommendations of the WHO mhGAP Humanitarian Intervention Guide for mental health management, with a focus on the treatment of psychosis, depression and epilepsy.

Only medicines included in the WHO Model List of Essential Medicines are proposed for the kit, with a strong focus on those listed in the WHO package of essential noncommunicable disease interventions, those used in other emergency kits and those recommended by colleagues from other regional offices.

The kit is divided into basic and supplementary modules. The basic modules are intended for outpatient care in a variety of primary health care settings, such as mobile clinics and existing or newly-established primary health care units. The basic module will mostly contain oral medicines, basic diagnostic equipment and additional products

needing cold chain, such as insulin. The supplementary modules are intended for the treatment of exacerbations or the stabilization of patients at the hospital/specialist level, mainly using injectable medicines. Cancer, skin diseases, autoimmune diseases and renal failure are not covered in the kit.

The methodology used to estimate the quantities of items needed in the kit is based on NCD prevalence data from refugee camps and estimations of the percentage of people seeking consultation and treatment within a three month period, based on recommended treatment schedules. The table is available for review from WHO, on request.

The proposed kit is based on eight modules that can be ordered independently, depending on the quantities required. For example, it is assumed that the medical equipment module will be ordered once only. The estimated weight and volumes of the various kit modules are presented in table 1. As can be seen from the table, the total weight of the full NCD emergency kit (basic modules 1a–1d and supplementary modules 2a–2d) is about 700 kg, and its total volume is about 3.9 m3. The bulk consists of the basic modules (3.2 m3), the supplementary modules comprising only 0.7 m3. This compares to a volume of about 8 m3 for the IEHK (10 basic kits and one supplementary kit).

In discussion, questions were asked about the risk modelling and the potential merits of including alternative medicines, such as the cheaper ranitidine instead of omeprazole and substituting beclomethasone for budesonide, for example, because of a possible lack of efficacy in chronic obstructive pulmonary disease. Questions were raised about the need to include equipment in the kit that is already contained in the IEHK, such as gloves (a small quantity), stethoscopes (five) and thermometers (five), and the need to prevent overlap. There was a suggestion to add some of the key renewables,

such as batteries, oxygen masks and key spare parts to the equipment module, rather than to a separate renewables module, given that the modules can be ordered separately, and to avoid spare parts that do not match the available equipment.

A key issue in the selection of items was the need to reduce the range of products in the kit and to prevent overlap with the IEHK and other kits, such as the reproductive health kit. Another point raised was whether the kit should supply well-known medicines (often preferred by prescribers and patients), even though they are now being replaced by better medicines on the WHO Model List of Essential Medicines (such as glibenclamide versus gliclazide, ranitidine versus omeprazole and atenolol versus bisoprolol).

Table 1: Estimated weight, volume and cost of the NCD emergency kit (average from supplier offers)

Description	Weight (kg)	Volume (m^3)	Cost (US$)
Basic 1a: Medicines	388	2.0	10 298
Basic 1b: Medicines cold chain	56	0.1	3067
Basic 1c: Renewable supplies	117	0.8	7207
Basic 1d: Medical equipment	25	0.3	1166
Supp. 2a: Medicines	57	0.2	2945
Supp. 2b: Controlled medicines	46	0.1	681
Supp. 2c: Renewable supplies	6	0.1	19
Supp. 2d: Medical equipment	50	0.4	2327
Total	**700**	**3.9**	**27 708**

The participants felt that the kit, besides being a source of emergency supply, has an example function, as an advocacy tool for the integration of the most cost-effective and safe essential medicines. The kit should therefore be forward-looking rather than confirming a level of practice that is no longer considered optimal (such as use of glibenclamide in patients over 60 years).

With regard to the selection of medicines, it was suggested to remove methyldopa, hydralazine and magnesium sulphate for the treatment of hypertension in pregnancy and eclampsia, given that these conditions are usually managed by obstetrical and gynaecological services, and are already included in the reproductive health kit. It was also suggested to remove some of the medicines used for palliative support, such as dexamethasone, omeprazole and hyoscine butylbromide, and to focus on pain management (by including paracetamol, ibuprofen and morphine).

Procurement and supply of the NCD emergency kit

An update was given on supplier responses to the call for bids made by WHO procurement offices. The first tender did not yield sufficient offers, and those submitted were too expensive, so the bid was closed. However, responses to the second bid, inviting eight suppliers, were more positive, with two bids for the full kit and one each for some modules (renewables and equipment). Included in the call for bids is a commitment to deliver the first kits within three months and to keep a number of kits as permanent stock for delivery at 48-hours' notice.

There was discussion on the technical specifications for the equipment and devices in the kit. The new WHO guideline on the technical specifications for oxygen concentrators was made available during the meeting. The general advice is to follow, as much as possible, the

existing specifications from WHO, and if these are not available, those from Médecins Sans Frontières (MSF), United Nations Children's Fund (UNICEF) and other supply agencies. The WHO Essential Medicines and Health Products (EMP) Department offered to assist in review of the specifications in the bids received. Contracts with suppliers should cover ample provision for replacement or refund for deficient items.

Participants acknowledged that this was the first attempt to make an NCD emergency kit and that there were some items for which WHO had little procurement experience. This could be explained to future users of the kit, who could be invited to submit any complaints or suggestions.

The current plan for first distribution of the kit in Iraq, Syria and Yemen envisages a total of 100 kits. The strategy in Iraq is to select four governorates, and within these, three different types of primary health care facility and one higher (hospital) setting, making a total of 16 different sites. Each setting will need at least two kits to ensure continuation of services, and the country will need a few additional kits as reserve stock. Similar plans are in preparation for Syria and Yemen.

Field testing of the NCD emergency kit

It was intended from the start that the kit should be field tested in three countries: Iraq, Syria and Yemen. A fully systematic approach should include a baseline survey, using a pre/post approach, with a control group, based on a product/patient/provider/place framework. It should address specific questions, such as whether the NCD emergency kit offered any advantage over individual ordering.

At the same time, it was recognized that most health workers in emergency settings are under immense stress and will have very little time and energy for evaluation. For this reason, participants felt it

useful to make a distinction between a pilot project (aimed at improving the kit) and a full evaluation (measuring the impact of the kit). Under the circumstances, it was recommended to focus on the former, using a simple survey to improve the contents of the kit. The survey should focus on: what essential items are missing from the kit; which items are unnecessary, undersupplied or oversupplied in quantity, and why; and what is to be done with any surpluses.

The survey can be undertaken using a simple evaluation form added to the documentation of each individual kit and should be accessible online, and possibly as a mobile application, to be easier to perform and analyse. The forms should be collected and analysed by the project management group. If possible, the survey should be followed up by telephone/online discussion and a more in-depth interview.

Programme management and communications

A recommendation was made to appoint a dedicated staff member to coordinate the next phase of the project, including deployment of the kit at pilot sites, and the monitoring and evaluation of its use. This person should be seconded by WHO to finalize the procurement process and move the project to the implementation phase. This should be carried out with logistical support and focal points in each country.

The use of the kit, along with understanding and acceptance by recipient health workers, and therefore its ultimate impact, will depend heavily on the preparations made and the provision of high-quality information. In principle, key information texts need to be prepared only once and can then be used for various purposes, including for the project website, kit brochure, advocacy materials and donor reports.

3. Recommendations

Selection and quantification

1. Further reduce the number of NCD medicines in order to prevent as much overlap as possible with other kits. After the final selection has been made, defer any suggestions for further change until after the evaluation of the first kit (probably end of 2017).
2. Describe in writing the key arguments for the selection (or non-selection) of items in the kit (medicines and other items). Use this description for the final stages of selection and use the same text for the accompanying booklet, the website and all other advocacy or information materials. Any overlap with the IEHK should be described and justified.
3. Create and maintain a detailed record of all underlying assumptions for quantification estimates, in order to explain the final quantities in case of future questions, and to adapt the estimations at a later stage, when needed. This record can be shared with any interested experts who would like to contribute towards better calculation of final estimations.
4. The amount of spare parts and/or essential renewables should be reviewed, adding an ample set of them to the related equipment in the equipment module (not in the renewables module), so that the providers of medical equipment include the spare parts and consumables required for a specified period of time.
5. Request support from WHO for devising the technical specifications of the required items and request support from WHO procurement offices in preparing the call for bids.

Specifications

6. Use WHO technical specifications and current procurement practices. Where no WHO specification exists, WHO procurement

offices should consider those used by MSF and UNICEF, providing this is not a specific brand.

7. Submit the technical bids received for the consumables and medical devices/equipment to WHO for review of the technical specifications offered.
8. Include WHO procurement indications in the final contract with the supplier that consider warranty times, consumables, spare parts, voltage stabilizers if needed, and replacement or refund of deficient items.
9. Establish a dedicated WHO focal point at country level for complaints and suggestions, and for evaluation of the kit.

Distribution

10. Prepare a detailed distribution plan for each of the three countries, with the planned number of kits and a list of selected end-facilities.
11. Document and publish the criteria for the selection of test sites from the start (for example, on the project website), as interest in the project may exceed its initial capacity.
12. Appoint a full-time project manager to plan, manage, coordinate and evaluate the kit project.

Field testing

13. Focus the evaluation on a simple survey to improve the content of the kit and not on a full evaluation of the impact of the kit.
14. Use a simple survey form to carry out the survey, included in each kit; if needed, this can be actively followed up by a telephone/online discussion.
15. Make all information on the pilot project, including the contents of the kit, its intended purpose and other supporting information, the

survey instrument and the contact address for comments and suggestions, publicly available, preferably on the project website.

16. Prepare a summary document with all relevant information on the kit as a standard information source for all stakeholders, governments, relief and development agencies, and donors.

Programme management and communications

17. Appoint a full-time project manager, a part-time logistics officer and three identified technical focal points in country offices for the pilot project and the survey.
18. Supply the following information with each kit:
    - a detailed document explaining the intended purposed of the kit (to maintain NCD treatment in line with essential medicine policies), the proposed settings (general primary health care settings for the basic kit and first hospital referral level setting for the supplementary kit) and the selection of items (brief description of the selection criteria);
    - simple prescribing information (preferably the relevant pages of the latest WHO formulary), with references to relevant treatment guidelines;
    - simplified guidelines for the use of equipment;
    - if possible, a poster with summary information on indication and dosage of each of the medicines included in the basic kit, for use in primary health care units;
    - a simple survey form on the contents of the kit; and
    - an address (e-mail/telephone) for complaints and suggestions to further improve the contents of the kit.

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