Cochrane First Aid Field: Strategic Plan

A proposal to the Cochrane Central Executive Unit

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Abbreviations and glossary

AHA: American Heart Association

CEBaP: Centre for Evidence-Based Practice

CET: Central Executive Team

CFA: Cochrane First Aid

ERC: European Resuscitation Council

First Aid: First aid is defined by the International Federation of Red Cross and Red Crescent Societies as the immediate help provided to a sick and injured person until professional help arrives. It is concerned not only with physical injury or illness but also with other initial care, including psychosocial support for people suffering from emotional distress caused by experiencing or witnessing a traumatic event. The first aid provider should be understood as a layperson with basic first aid knowledge and skills. These people include first responders without medical or paramedical background, such as firemen and police officers. The care can include care provided for illnesses or injuries that require additional care in a hospital or healthcare facility or not. First aid partially overlaps with pre-hospital care (see below).

GFARC: Global First Aid Reference Centre of the IFRC

HIFA: Health Information For All

IFRC: International Federation of Red Cross and Red Crescent Societies

ILCOR: International Liaison Committee on Resuscitation

LMIC: Low- and Middle-Income Country

Pre-hospital Care: Initial care to an injured or ill person until the patient arrives at a formal health care facility capable of giving definitive care. The first tier of prehospital care may be composed of laypeople in the community who have been taught basic techniques of first aid, known as "first responders". The second tier comprises paramedical personnel who use dedicated vehicles and equipment and are usually able to get to patients and take them to hospitals within the shortest possible time, and who have been trained in basic pre-hospital trauma care. The third tier of pre-

hospital care is advanced pre-hospital care, also known as advanced life support, and is provided by professional pre-hospital care provider, either a physician or a trained non-physician paramedic (1). The setting for pre-hospital care is any setting outside a hospital or any healthcare facility where there is typically less equipment and resources; implicit in this term is the universal need, by this specific group of patients, for transfer to hospital; could be a battlefield, disaster area, incidence scene, ambulance environment (1, 2).

RCA: Resuscitation Council of Asia

Emergency Care: That care delivered in the first few hours after the onset of an acute medical or obstetric problem or the occurrence of an injury, including care delivered inside a fixed facility (3).

1. Executive summary

People across the world daily face injuries and acute illnesses and die for want of simple, low-cost interventions, interventions that are either unknown or available but simply not provided in time. Even before the injured and ill reach professional medical assistance, other laypeople (or the victims themselves), including first responders without medical or paramedical background, can provide assistance, which is called first aid. First aid interventions aim to 'preserve life, alleviate suffering, prevent further illness or injury and promote recovery'. Unsurprisingly, first aid education is a very cost-effective way to improve public health, with only an estimated $ 8 to be invested per averted disability-adjusted life year (DALY). The Evidence-Based Practice movement has gotten a foothold in first aid in recent years. Several international organisations in the field of first aid have developed evidence-based guidelines. First aid interventions, however, remain understudied and especially Cochrane-quality evidence is lacking. Furthermore, within the Cochrane Fields, Review Groups or Networks, the target audience of laypeople as healthcare providers is not yet represented at the moment.

The establishment of the Cochrane First Aid Field will support first aid guideline developers, instructors and practitioners, by ensuring that their needs are identified as research priorities to be addressed by high-quality Cochrane reviews, and by disseminating the existing first aid-related Cochrane evidence to guideline developers and other relevant stakeholders and provide training on how to use this evidence.

In this strategic plan, we outline our mission, the activities for the first three years of Cochrane First Aid and the strengths as well as the challenges we will face.

2. Background

People across the world daily face injuries and acute illnesses and suffer and even die needlessly because they do not receive basic life-saving interventions or don't have access to basic healthcare interventions. One of the contributing factors to this is that the care provider, who can be anyone from a family member to a health worker, does not have access to the knowledge they need to make appropriate decisions and save lives. A simple example is the incidence of acute diarrhoea in children, with diarrhoeal diseases as the second highest cause of death in low income countries. A low-cost immediate treatment is providing additional fluids to prevent dehydration. However, in many places it is believed that children should receive less drinks than normal, with dehydration and an increased risk of death as a consequence (4).

When laypeople provide initial assistance to an ill or injured person, this is called "first aid". First aid is defined by the International Federation of Red Cross and Red Crescent Societies (IFRC) as the "immediate help provided to a sick and injured person until professional help arrives. The first aid provider should be understood as a layperson with basic first aid knowledge and skills" (5). According to First Aid Task Force of the International Liaison Committee on Resuscitation (ILCOR), first aid interventions aim to 'preserve life, alleviate suffering, prevent further illness or injury and promote recovery' (6). Both the IFRC and ILCOR first aid definitions mention that additional care by professional help might be needed after first aid (5, 6). These definitions imply that first aid takes place in an out-of-hospital setting, where initial care is provided by trained laypeople, which can include e.g. police officers and firemen, responders who often arrive first at a scene of injury, but do not have a specific (para)medical background. In addition, many first aid guidelines also include preventive messages, directly applicable by laypeople, on how to avoid illness or injury.

Training people in first aid worldwide may contribute to the above described problem of lack of accessible health knowledge and information to many people, and will also improve people's helping behaviour. However, it is important that first aid guidelines are based on solid scientific evidence. The Evidence-Based Practice movement has gotten a foothold in first aid in recent years. The Belgian Red Cross was a pioneer in the field in 2006, with the development of the first evidence-based first aid guidelines for Europe (7). The development of evidence-based first aid guidelines became a strategic focus for the Belgian Red Cross, with the development of the African first aid materials (8), Indian first aid guidelines (9), Nepal first aid guidelines and active involvement in the development of first aid guidelines by some of the major players in the field, including the International Federation of Red Cross/Crescent Societies (IFRC) (5) and ILCOR (10).

The IFRC is an umbrella organisation, which unites all 191 national Red Cross/Red Crescent societies. Providing first aid education is a main goal of all these organisations and therefore of course also of the IFRC. In 2012 the IFRC established a Global First Aid Reference Centre (GFARC), with the aim to harmonize first aid, advocate for first aid, share competences, develop resources and promote research and an evidence-based approach. According to a survey with the Red Cross/Red Crescent national societies, conducted by GFARC, around 11.5 million of people were trained in first aid by these societies in 2016 (11). Evidence-based guidelines produced by GFARC, in collaboration with CEBaP, are used by many of the Red Cross/Red Crescent national societies as source of information to develop their own contextualized manuals and materials to provide first aid education.
ILCOR was established in 1992 as a platform to unite the world's major resuscitation organisations, including, but not limited to the European Resuscitation Council (ERC), the American Heart Association (AHA) and the Resuscitation Council of Asia (RCA). The mission of ILCOR is to promote, disseminate and advocate international implementation of evidence-based resuscitation and first aid, using transparent evaluation and consensus summary of scientific data. ILCOR initially focused on resuscitation, but with the development of an international First Aid Task Force within ILCOR in 2012, the scope of ILCOR broadened to resuscitation and first aid.

Despite this shift in the field of first aid towards working evidence-based, an analysis of the evidence used in the 2016 update of the first aid guidelines for Flanders, Belgium, by the Centre for Evidence-Based Practice (CEBaP) of the Belgian Red Cross, has shown that there is a clear lack of Cochrane-quality evidence in this field. Out of a total of 319 evidence summaries prepared for these guidelines, 191 (60%) contained scientific evidence to form a basis for decision-making. In contrast, in only 41 (13%) of these summaries Cochrane reviews were used as a source of evidence. The same exercise was done for the 2016 update of the African First Aid Materials developed by CEBaP. Out of 50 Africa-specific summaries made, 41 (82%) contained scientific evidence, but only 15 (30%) contained evidence from a Cochrane review. This clearly demonstrates that there is room for Cochrane to address topics relevant for a lay setting with its high-quality reviews. Moreover, it was shown that those Cochrane systematic reviews that were included as a basis for our first aid guidelines, emerged from different Cochrane Review Groups (CRGs) and Networks (Fig 1A and 1B).

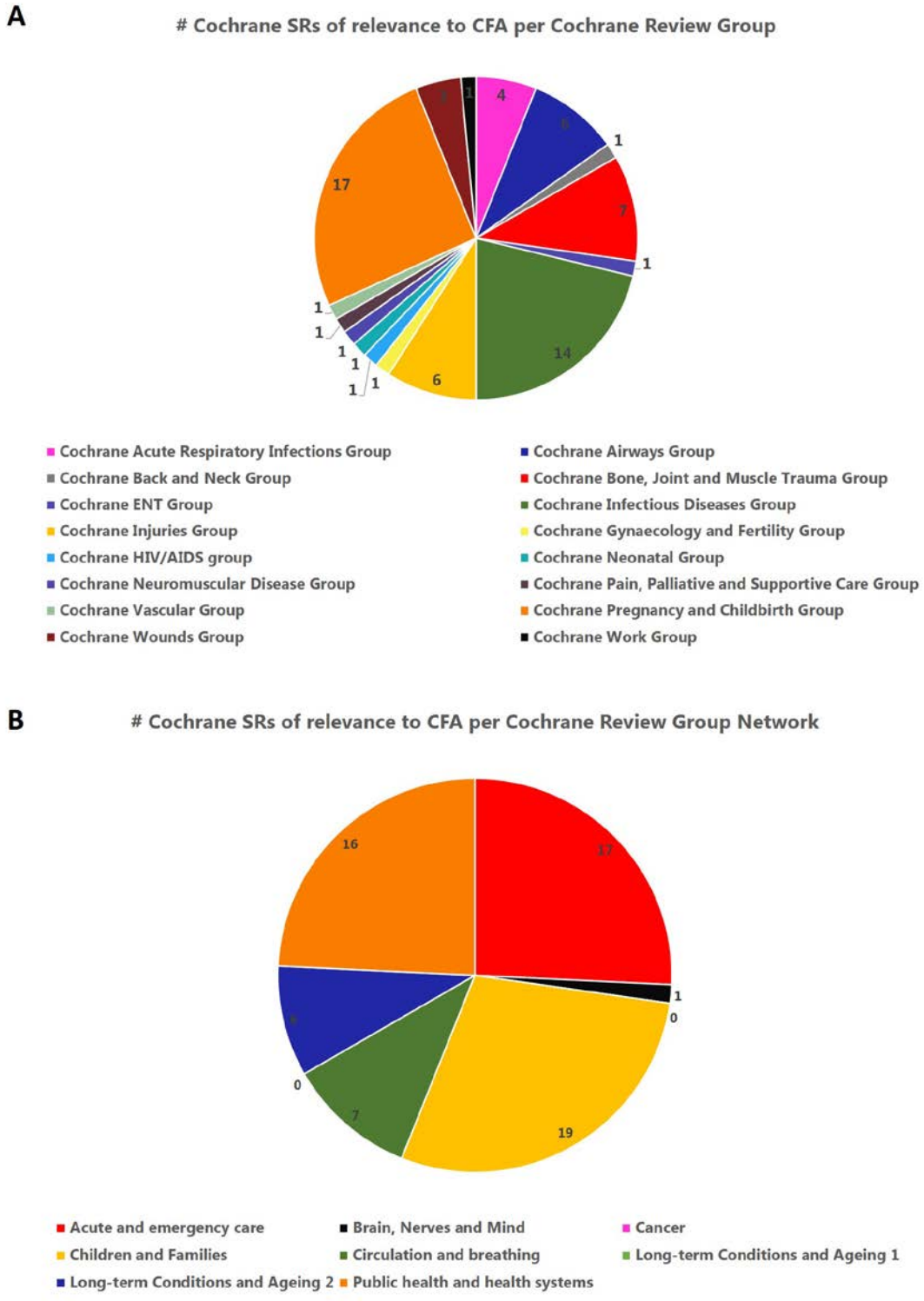


Figure 1: Number of Cochrane systematic reviews of relevance to CEBaP's first aid guidelines per (A) Cochrane Review Group and per (B) Cochrane Review Group Network.

In contrast to the sparse evidence emerging from Cochrane reviews to support our guidelines, first aid is a high priority topic. A study by the World Bank has demonstrated that first aid education is a very cost-effective way to improve public health, with only an estimated $ 8 to be invested per

averted disability-adjusted life year (DALY) (12). Especially in low- and middle income countries (LMICs), where professional help is not always readily available, increasing first aid capacity is a vital part of building a resilient society (13).
Given these considerations, an increased emphasis on interventions that are also feasible by a lay audience, i.e. building a better knowledge base, can lead to better first aid provided and therefore better health. Given that the most vulnerable people are the ones who can benefit most from first aid, a higher priority towards interventions feasible in the first aid setting contributes to an increased health equity.

These considerations led to the idea of a global platform to advocate for the development, dissemination and uptake of high-quality evidence on first aid. The field would benefit from such a platform that provides guidance on any aspect of first aid on the one hand, but also serves as a portal to address the needs of the field with evidence synthesizers. It would aim to lower the bar towards the use of evidence for all who have an interest in first aid and be a liaison between science and practice.

As Cochrane is the world's leading organisation when it comes to reliable health information, it seems natural to develop this platform within Cochrane. Even more so as the layman as provider of care is a target audience that is not yet addressed by any other CRG or Field within the organisation. Two other Fields also target the out-of-hospital scene, the Cochrane Pre-Hospital and Emergency Care Field and the Cochrane Primary Care Field. However, the Cochrane Pre-hospital and Emergency Care Field targets emergency care professionals, while the Cochrane Primary Care Field targets primary care physicians. On the other hand, there is the Cochrane Consumer Network, but this Field targets laypeople only as consumers, and not providers of care. The consideration for the set-up of a Field, instead of a thematic CRG, was made given the broad spectrum of interventions covered by the definition of first aid and correspondingly the wide range of existing relevant CRGs on the one hand, and the anticipated emphasis on knowledge transfer and advocacy on the other. The First Aid Field will be able to support the function of the distinct CRGs that provide evidence within the scope of the Field by providing guidance on prioritization of hot topics within the field and by being able to provide the point-of-view of the layman during conceptualization and development of reviews.

3. Mission and vision of the Cochrane First Aid Field

The Cochrane First Aid Field (CFA) aims to be a global, independent network of people interested in developing, disseminating and implementing high-quality research evidence within the field of first aid. We want to become a liaison between the major players in the field of first aid (ILCOR, IFRC, ERC

and others) and Cochrane, as the major evidence-synthesizing organisation, and the go-to resource for high-quality, first aid-related systematic reviews. The target audience of this Field is the layman providing first aid, but also the people who are occupied with providing education and resources to this population.

We envision a Field that is able to translate the practical needs that exist within first aid as research priorities, but on the other hand also aims to disseminate existing first aid-related Cochrane evidence to a broad audience in a variety of forms.

4. Scope of the Cochrane First Aid Field

The CFA Field will focus on interventions that aim to provide care for sick or injured people, but feasible to be performed by laypeople and first responders, as well as interventions that aim to prevent injury.

Since most Cochrane intervention reviews do not specifically address the relevance of the healthcare intervention for a lay audience, reviews of interventions that may be applicable in a first aid setting (e.g. interventions described in first aid guidelines) will also fall within the scope of the CFA Field.

Below are the titles and publishing CRGs of several Cochrane reviews that are of relevance to CFA, demonstrating the scope of our Field.

Title	**Cochrane Review Group**
Physical interventions to interrupt or reduce the spread of respiratory viruses	Acute respiratory infections
Breathing exercises for dysfunctional breathing/hyperventilation syndrome in children	Airways
Manual material handling advice and assistive devices for preventing and treating back pain in workers	Back & neck
Interventions for treating acute elbow dislocations in adults	Bone, joint & muscle trauma
Interventions for recurrent idiopathic epistaxis (nosebleeds) in children	ENT
Exercise for dysmenorrhea	Gynaecology & Fertility
Condom effectiveness in reducing heterosexual HIV transmission	HIV/AIDS
Insecticide-treated bed nets and curtains for preventing malaria	Infectious Diseases

Education of children and adolescents for the prevention of dog bite injuries	Injuries
Chlorhexidine skin or cord care for prevention of mortality and infections in neonates	Neonatal
Non-drug therapies for lower limb muscle cramps	Neuromuscular disease
Interventions for the symptoms and signs resulting from jellyfish stings	Pain, palliative and supportive care
Maternal positions and mobility during first stage labour	Pregnancy & Childbirth
Compression stockings to prevent emboles	Vascular
Interventions for preventing the spread of infestation in close contacts of people with scabies	Work
Water for wound cleansing	Wounds

5. Cochrane First Aid within "Cochrane's Strategy to 2020" and "Cochrane's Knowledge Transfer Framework"

a. Response of CFA to Cochrane's Strategy to 2020

CFA endorses and wants to contribute actively to Cochrane's Strategy to 2020, making sure the objectives within our reach are met. Below, we describe briefly how we will respond to different objectives set in Strategy to 2020. Full details of these activities are found further on in this strategic plan.

Goal 1: Producing evidence

CFA can actively contribute to the production of high-quality evidence. Firstly, we may provide methodological support to review authors writing a Cochrane review relating to first aid interventions, within our capacity. Secondly, we can provide editorial assistance to CRGs in case of limited capacity, when the topic is first aid related and capacity allows us. Thirdly, we are able to perform high-priority reviews, if for certain high-priority topics no review team can be identified. Fourthly, we will contribute to Cochrane's strive for relevancy by performing prioritization exercises, to identify the most relevant first aid-related topics that need to be addressed by Cochrane reviews. For this we will actively engage with priority exercises that are already ongoing (e.g. ILCOR, GFARC), but the focus will lie on the availability of RCTs for a certain topic of interest. The results of these will be communicated to the senior editors of the relevant CRG networks. Their role will be to function

as a liaison with the relevant CRGs, who will be motivated to fill identified knowledge gaps and include the perspective of the layman as provider of care in their reviews.

The set-up of our Field also contributes to an increased coverage for Cochrane, across an area of health that was not yet addressed formally by any CRG or Field.

Goal 2: Making our evidence accessible

A large part of the activities of CFA will fit within the newly developed Knowledge Transfer Framework, developed by Cochrane. We will repackage relevant Cochrane reviews in formats that are easily accessible to our target audiences, i.e. organisations and individuals with an interest in high-quality systematic reviews on first aid-related topics. We will carefully evaluate which formats are most appropriate for our target audience.

Goal 3: Advocating for evidence

CFA plans to do its share in promoting Cochrane as a global 'home of evidence', especially in the field of first aid, by attending thematic conferences, and contributing actively in the form of presentations, workshops and information booths.

We will further advocate for the uptake of (Cochrane) evidence in first aid guidelines of the major players in first aid, including the GFARC, ILCOR, and others. Within CFA, formal partnerships between these organisations and Cochrane could be formed, to further establish the shift to evidence that has been made in first aid in the past years.

Goal 4: Building an effective and sustainable organization

CFA aims to be a platform for first aid evidence, that is open to all with an interest in reliable first aid research evidence. We aim to be a global platform, which we can achieve via a network of globally active first aid organisations.

We want to increase the capacity of our target audience to write and/or interpret systematic reviews and research evidence by organising workshops at annual conferences. This should increase stakeholder engagement, and therefore the number of contributors to our Field and to Cochrane in general.

Our Field will be led in a transparent way, and will report its activities, achievements and financial situation on an annual basis to the Central Executive Team (CET).

b. Response of CFA to Cochrane's Knowledge Transfer Framework

In this paragraph, we will describe briefly how we aim to respond to Cochrane's Knowledge Transfer (KT) Framework, which has been launched in 2017 and builds further on Strategy to 2020, and in which Fields are expected to play an important role. The activities described below are elaborated further on in this strategic plan.

Theme one: Prioritization and co-production of Cochrane reviews

Our Field will bring the major players in first aid, including ILCOR, GFARC and others together, who can provide direct input concerning the knowledge gaps in our field. Furthermore, we will actively engage with both the users of our guidelines and CRG networks and CRGs, to determine priorities, and make sure reviews are produced that meet the needs of our field.

Theme Two: Packaging, push and support to implementation

We will facilitate push by repacking reviews in easily accessible formats for the users, and by providing them through channels frequently consulted by our users, thereby always taking into account that our main audience will be laypeople. We will carefully think and evaluate which products work best for our audience.

Theme Three: Facilitating pull

We will take our part in capacity building of users, both via E-learning initiatives and through workshops at annual conferences. This will increase user's capacities to consult, interpret and use Cochrane evidence. We will consult key users to identify and meet their evidence needs.

Theme Four: Exchange

As part of guideline developing groups, we are at the right place to bridge the gap between evidence and practice. By forming a strategic partnership in the form of a Cochrane Field, we want to formalize the connection between the different players in first aid on the one hand, and between the developers of evidence (Cochrane) and users of evidence (the different players in first aid) on the other.

Theme Five: Improving climate

We will advocate for the use of evidence within our network of first aid organisations in various ways. Firstly, this includes the take-up of Cochrane evidence in the globally distributed and used first aid guidelines by ILCOR and GFARC. Secondly, by developing a register of relevant Cochrane and non-Cochrane systematic reviews for first aid-related topics, we will provide a valuable resource for anyone interested in the available scientific evidence regarding first aid topics. Thirdly, by providing training to end-users, we increase their capacity to make use of systematic reviews as information sources for informed decision-making.

Theme Six: Sustainable KT Processes

The CFA field does not aim to develop infrastructure and resources for KT, but would of course be interested to make use of any resources available.

6. Cochrane First Aid's goals and objectives

The main goals of CFA to achieve its mission are fixed along the main tasks of Fields, as defined by the Cochrane CET, i.e. 1) network building, 2) building demand/advocacy, 3) knowledge translation outputs and 4) stakeholder engagement.

a. Network building

The primary goal of our Field will be the development of a vibrant and global network of people and organizations who are passionate about first aid and the use of research evidence to substantiate the quality of first aid all over the world.

To reach this goal, following objectives have been set:

i. Making sure the major players in the field of first aid take part in our Field. These include GFARC of the IFRC, ILCOR and others interested, either as a member or as a stakeholder.
ii. Aiming for a global representation in active contributors, by actively soliciting in our partner organizations for contributors.
iii. Consulting our global partners about their evidence needs via a gap analysis, conducted by GFARC, and translating this to the relevant CRGs.

b. Building demand/advocacy

Another goal of our Field will be to advocate for the uptake of (Cochrane) systematic reviews and research evidence in first aid guidelines and affiliated documents such as training manuals and educational materials, on a global scale. Following objectives will help us to reach this goal:

i. As part of first aid guideline development task forces, we will actively contribute to the inclusion of Cochrane evidence in guidelines of the major first aid organizations worldwide.
ii. We will build a register of first aid-related Cochrane and non-Cochrane systematic reviews. This will be a valuable resource for anyone who wants an overview of the available evidence base concerning first aid-related topics.
iii. Increasing demand in our end users by providing training on how to consult, read, interpret (Cochrane) systematic reviews and research evidence in general. This will lead to a lower threshold to the use of evidence in decision-making. This training will be delivered via two channels:
    - By organizing workshops and giving oral presentations on thematic annual meetings (e.g. the International First Aid Education Conferences)
    - By providing E-learning materials. An introductory E-learning module on the basic principles of Evidence-Based Practice has already been released by CEBaP of the Belgian Red Cross (14). We would like to elaborate these E-learning materials further with following modules:
        1. What is Cochrane First Aid and how can it help you?
        2. How to read a Cochrane systematic review?
        3. An introduction on study designs, their strengths and weaknesses

c. Knowledge translation outputs

Another primary goal of CFA will be the production of KT products. We want to spread Cochrane evidence as much as possible in a format that is ready to use for our end-users, laypeople providing first aid. Within this goal, we aim to develop following products:

i. Our first and foremost KT product will of course be evidence-based first aid guidelines, which will incorporate all the relevant Cochrane evidence. These guidelines are produced by the major first aid organizations, and we deliver active

contributions to these. Our guidelines are disseminated on a global level, including LMICs, for which the reach of these products is enormous.

ii. Secondly, we will also actively disseminate first aid-related Cochrane reviews in formats that are easy to interpret:
    - Listings of relevant Cochrane and non-Cochrane systematic reviews, sorted per first aid topic
    - Informative summaries with to-the-point conclusions
    - Visually attractive info graphs/slides (Tumblr)
    - Periodical columns ('Cochrane Corners'), which can be published in relevant journals, such as the International Journal of First Aid Education.

iii. Thirdly, we will promote Cochrane actively at annual conferences we attend, such as the International First Aid Education Conference.

d. Stakeholder engagement

Our Field will bring together the major players in the field of first aid, who can provide direct input on how Cochrane can increase its relevance for them. We have identified following objectives:

i. Demanding input on priority topics for future Cochrane reviews. We will perform a gap analysis, through communication with ILCOR and GFARC who have ongoing priority exercises. In addition we can easily reach the global network of national Red Cross societies, through GFARC of the IFRC. These priority setting exercises will be looked at through the lens of availability of RCTs, in order to guarantee useful systematic reviews. The results of these will be communicated to the relevant CRG networks senior editors, who will be the liaison between Cochrane Fields and CRGs (see also objective 1.3).

ii. Demanding input on how Cochrane in general and CFA can increase its relevance for the field, via surveys among stakeholders.

e. Involvement in review production

CFA intends to be actively involved in review production. This will be along following objectives:

i. Involvement in prioritization exercises for first aid-related topics (see also objective 1.3)

ii. We may assist CRGs who have capacity issues to take on review proposals that are relevant to our Field with editorial work, for topics that fit our scope and expertise and within our capacity.
iii. For priority issues where CRGs struggle to find author teams, Cochrane First Aid may take up some of the work to fill the most crucial gaps.

7. The actors: Initiators, Field's personnel, stakeholders, members and collaborating centres

a. The initiators

The Field initiators are representatives of CEBaP of the Belgian Red Cross, pioneers in in evidence-based first aid. Initiators CVs are available in Appendix 1.

Name	Function
Prof. Emmy De Buck, eng., PhD	CEBaP, Belgian Red Cross, Belgium; Department of Public Health and Primary Care, Faculty of Medicine, KU Leuven, Belgium
Bert Avau, PhD	CEBaP, Belgian Red Cross, Belgium; Cochrane Belgium, Belgium
Anne-Catherine Vanhove, PhD	CEBaP, Belgian Red Cross, Belgium; Cochrane Belgium, Belgium
Prof. Philippe Vandekerckhove, MD, PhD	Belgian Red Cross, Belgium; Department of Public Health and Primary Care, Faculty of Medicine, KU Leuven, Belgium

b. CFA Personnel

The Director of the Field will be Prof. Emmy De Buck. The Director will be assisted by an advisory board comprised of members of our partner organizations (see section 10.a). They will assist the Director in prioritizing and planning the activities of the Field.

The Centre for Evidence-Based Practice will provide the manpower to carry out the main tasks and activities of the Field by instating 2 field coordinators, Bert Avau and Anne-Catherine Vanhove. Furthermore, the Field will welcome voluntary contributors who want to carry out part of the work. Finally, collaborating with individuals and organizations interested in first aid as well as other relevant groups within Cochrane will ensure we meet our networking, KT and stakeholder objectives.

c. Stakeholders benefiting from Cochrane First Aid

Cochrane First Aid will engage with a variety of stakeholders who all have an interest in the Field and could benefit from the activities of the Field whether they are actively contributing or not. These stakeholders will be both external and internal to Cochrane.

i. Internal stakeholders

CFA is set to engage with several CRGs, Centres and Fields.

As discussed with the Cochrane Executive Team, CFA will operate within the Cochrane Acute and Emergency Network and will therefore heavily collaborate with the CRGs of this Network. As CFA gets more established, we foresee to expand our activities and collaborations beyond this Network. CFA could engage with no less than 16 CRGs and 6 CRG networks as shown in the broad scope of our field (section 4). As outlined in the background as well as the goals and objectives section CFA will be aiming to collaborate with many of these CRGs after priority setting through consultation with external stakeholders for the gap analysis and communicating this to the relevant CRGs, through the senior editors of the relevant CRG networks. CFA may also be able to support CRGs by providing the view of laypeople as healthcare providers during the development of proposals and reviews. Finally, for those CRGs who identify highly relevant first aid reviews but who are unable to find author teams, CFA could assist in this search and/or take up some of the work to fill these gaps.

CFA will closely collaborate with the Cochrane Pre-hospital and Emergency Care Field, which is already part of the Cochrane Acute and Emergency Network. First aid and pre-hospital care do show extensive overlap due to the out-of-hospital setting that they have in common. The main difference between the two Fields is the provider of care: laypeople for CFA and professional health care practitioners for Cochrane Pre-hospital and Emergency Care. CFA and Cochrane Pre-hospital and Emergency Care could be crossing paths as they might look at the same Cochrane evidence, but will be distinct in knowledge translation in which the target audience, laypeople or professional providers, is a crucial factor. CFA and Cochrane Pre-hospital and Emergency Care will also share some external stakeholders, such as ILCOR, so a good collaboration and communication between these two Fields will be imperative.

Furthermore, CFA, which will be based mostly at CEBaP in Belgium, will be able to benefit from collaborations with Cochrane Belgium. This Geographic Group already has extensive expertise in teaching courses on developing and conducting systematic reviews and in providing personalized

assistance to systematic review authors. While CFA will focus on teaching end users how to consult, read and interpret Cochrane evidence through workshops, we will draw on the experience of Cochrane Belgium wherever possible. Moreover, the development of E-learning materials by CFA aimed at a broader public will certainly be a complementary activity to the approaches of Cochrane Belgium.

CFA will aim to collaborate with other geographical centres as well, especially with centres located in Africa, Central- and South-America and Asia to expand and strengthen the reach of the Field, connect us to other relevant external stakeholders and ensure representation from all regions in CFA.

ii. External stakeholders

CFA will engage with external stakeholders to identify and prioritize evidence gaps regarding first aid, to disseminate relevant Cochrane evidence in easy-to-use formats, and to promote the incorporation of Cochrane evidence in first aid guidelines. We will actively engage with ILCOR as one of the key external stakeholders. ILCOR has a First Aid Task Force and develops systematic reviews and treatment recommendations, which are translated into guidelines by the different ILCOR member Resuscitation Councils. In addition, the 191 Red Cross/Red Crescent National Societies all have first aid education, and the development of first aid manuals, in their core business. We can reach those National Societies via GFARC of the IFRC (who will be a partner organization of CFA, see below), an IFRC reference centre for first aid that develops an international first aid guideline every 5 years. Both ILCOR and GFARC have priority exercises ongoing, and we will actively consult them for this exercise. ILCOR involved the general public in their priority exercise, by making the priorities open for public comment on their website. Another possible relevant stakeholder is HIFA ("Health Information for All"), a global health network that aims to achieve a world where every person has access to healthcare information they need to protect their own health and the health of others. Since also CFA has laypeople in its target group, it could be an added value for both groups (CFA and HIFA) to exchange information.

Involvement of these global organisations ensures that CFA will have a global reach. While these organisations have already been integrating Cochrane evidence into their resuscitation and first aid guidelines, CFA will form a permanent two-way connection between Cochrane and these organisations, making sure their concerns and needs will also be heard within Cochrane and communicated to the relevant CRGs.

CFA will build on this base of partnerships and aims to connect to other relevant stakeholders, including organizations offering first aid training (including Red Cross/Red Crescent National Societies), national first aid and resuscitation councils or associations developing guidelines, government and/or ministries, the general public, etc.

d. Members, partner organisations and collaborating centres

CFA will consider those individuals who have shown an interest in the CFA activities and want to be informed on future activities as CFA members. Members can take up a more active role by contributing to CFA's activities including (but not limited to) promoting Cochrane in their community, reporting about CFA activities at conferences or within their own organisation, providing workshops, leading or contributing to Cochrane reviews and taking part in CFA's KT activities.

Partner organisations of CFA currently include CEBaP and GFARC, and potentially other organisations who show interest in CFA's activities. Representatives of partner organisations can be part of our advisory board, actively steering the direction and priorities of CFA. In addition, members of partner organisations that show an interest in CFA's activities may take up an active operational role in the field's activities.

These members and partner organizations would be supervised and coordinated by the field coordinator(s) and could assist in building demand through training of users and advocating for the use of Cochrane evidence, assist in knowledge translation by disseminating Cochrane evidence in appropriate formats and finally, assist in review production.

Over time, CFA might engage with geographical Cochrane centres, such as Cochrane Belgium, a centre in which the field coordinator(s) are actively involved. This centre could then connect CFA to other Cochrane Centres for distribution of CFA products.

8. Strengths of the field

a. Global reach through partner organisations and stakeholders

The CFA partner organisations and stakeholders are organisations with global structures. IFRC and its 190-member National Societies have a global reach as humanitarian aid organization. As one of the world's leading first aid trainers and providers, IFRC established GFARC in 2012 offering its members technical expertise and support. GFARC and CEBaP (a subsidiary of Belgian Red Cross) intensively collaborated on the International First Aid and Resuscitation Guidelines 2016. Moreover, CEBaP has already collaborated with several national societies (e.g. Indian, Nepal, Rwandan, Nigerian, Kenyan, Ugandan Red Cross Societies) introducing the use of evidence-based first aid guidelines to these national societies. ILCOR has been active since 1992 as a forum for liaising between the principal resuscitation organisations worldwide. Its member organisations, such as ERC, are associations that are involved in resuscitation guideline development, usually for more than one country. Both GFARC and ILCOR consist of representatives from across the world and in turn have global reach when disseminating information.

b. Direct involvement in guideline development groups

CFA will offer a unique link between producers of evidence and the users of evidence. The Field's initiators and many of the potential external stakeholders are heavily involved in guideline development. Therefore CFA can contribute directly in bridging the gap between the evidence and practice. For those organizations less familiar with the use of evidence in guideline development, we

will be able to offer training to increase their abilities to integrate evidence from systematic reviews into their guidelines. CFA will advocate for the take-up of Cochrane evidence whenever it is available. In addition to this training and advocacy, we will also set up a register containing both Cochrane and non-Cochrane systematic reviews concerning first aid topics which will serve an essential resource for these guideline developers.

c. Relevance of the domain of first aid to Cochrane

At this moment in time, Cochrane is not reaching a very specific, yet large segment of healthcare providers: the laypeople. While both the Cochrane Primary Care and Cochrane Pre-hospital and Emergency Care also operate in the out-of-hospital setting like CFA, they are both focused on professional healthcare providers with specific medical material at their disposal. First aid on the other hand is focused on simple but effective interventions which can be performed by laypeople in a normal day-to-day setting. This also immediately explains why no single CRG is dedicated to first aid. After all, first aid comprises any assistance provided to a sick or injured person until (if needed) professional help arrives. First aid therefore relates to many different health topics and is covered by reviews in several CRGs. Finally, the Cochrane Consumer Network does focus on laypeople but as consumers and not as providers of healthcare interventions. We therefore believe that CFA will fill the existing gap by reaching the target audience of laypeople as providers of care which is in line with Cochrane's strategy to 2020.

d. Priority field with large potential impact on global health

According to the World Bank, teaching first aid to laypeople is a very cost-effective way to improve public health (12). With an estimated global number of deaths due to injury of close to 5 million, it is not surprising that large efforts are being put into this training of laypeople (15). In areas where access to professional healthcare is limited, such as developing regions, out-of-hospital care by first aiders may be even more important than developed regions (13). This clearly shows that better evidence for first aid interventions feasible for a lay audience could have a large impact on global health. Cochrane is currently already regarded as 'the home of evidence' when it comes to health information and CFA will enhance Cochrane's position in the first aid field by contributing to the identification and prioritization of needed evidence, the production of evidence and finally the dissemination of this evidence to guideline developers and end users, thus bridging the gap between science and practice.

9. Challenges and obstacles

a. Building networks with Cochrane Review Groups

As mentioned in the scope of the Field section, first aid has a very diverse range of possible interventions and health topics it covers, and CFA will therefore need to network and build constructive relationships with many of the CRGs and CRG networks to weigh in on the prioritization of reviews. This step will be crucial, however, to make sure that the results of CFA's gap analysis on the evidence needs of the first aid field actually will be considered within the Cochrane community and to move towards more evidence for first aid. CFA may however also be available to provide assistance with or even take on editorial work on reviews that are within the scope and expertise of CFA, within our capacity. Finally, if CRGs struggle to find author groups to take on the highly relevant reviews on first aid topics, CFA can assist them with the production of evidence as well. Connecting with all of the relevant CRGs and building our network will be essential to achieve these goals, and the role of the newly established CRG networks will be primordial in this.

b. Ensuring global representation in active contributors

CFA will actively seek to include members from LMICs to contribute to our activities. This is especially important for CFA as first aid most likely plays an even greater role in healthcare in LMICs

than in developed countries. It is therefore vital that these countries will be well represented and also weigh in on the evidence gaps as both the importance of certain first aid health topics as well as potential interventions for a certain health topic might differ across the world. Certain diseases or injuries (e.g. malaria, snakebite) are highly prevalent and therefore of priority in LMICs. The resources available to provide first aid may also lead to different first aid interventions applied for a certain disease or injury in some LMICs, compared to high-income countries (e.g. honey to treat a burn). CFA will be able to supply these LMIC representatives with evidence that can be incorporated into their guidelines or first aid activities. Active representation from LMICs within CFA will be key to all of our activities.

c. Ensuring additional funding sources

As discussed in section 11, CFA will be able to rely on some stable funding from the Foundation for Scientific Research of the Belgian Red Cross. Moreover, we will be expecting either financial or in-kind contributions from our active members. However, to further broaden and/or deepen our activities we will aim to secure additional funding, be it project-based or through for instance travel grants. CFA will actively seek out these opportunities after starting its core activities.

d. Reaching our target audience effectively

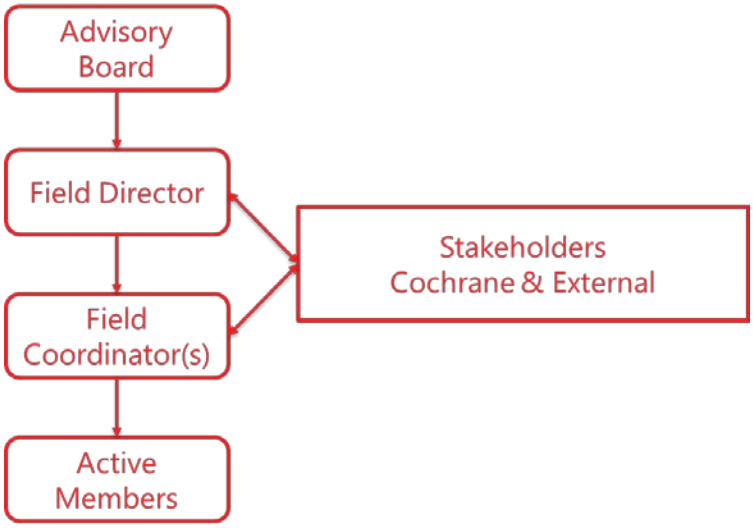
One of the main challenges for CFA will be to reach our target audience itself: the laypeople providing first aid and their educators. While we as the CFA initiators already have very good connections with guideline developers and organisations active in first aid (education), it will certainly be challenging to reach the first aid trainers and laypersons themselves directly. We will have to collaborate with the organisations to work towards more people being introduced to evidence and learning how it is incorporated in the courses they teach and/or follow, towards more people being introduced to Cochrane as provider of this evidence and finally towards ensuring that their voices are heard by CFA. A first step will be the development of publicly available e-learning materials on CFA and its activities.

e. Lack of evidence

One of the major challenges in the first aid field is the lack of evidence for many of the interventions. CFA will therefore, together with its stakeholders, identify several knowledge gaps. Identification of knowledge gaps is currently already ongoing in ILCOR and the IFRC, via GFARC. We will raise awareness for the most important (and researchable) knowledge gaps and advocate within the

medical/scientific community for more research concerning these first aid themes. Furthermore, the use of RCTs in first aid research is also heavily underrepresented compared to other medical disciplines and often only observational research is available due to several reasons such as lack of funding, lack of research interest or ethical considerations. Setting up a register combining both Cochrane and non-Cochrane systematic reviews is therefore of the utmost importance to make sure interventions not (yet) supported by Cochrane evidence are also charted.

10. Structure of the field: roles and responsibilities of the different profiles within the field



a. Advisory Board

The advisory board comprised of both first aid as well as systematic review experts will advise and assist the Field Director on all matters related to the governance of CFA.

The members of the board will include:

- representatives of our partner organisations, such as CEBaP and GFARC
- the Senior Editor of the Cochrane Network this field is a part of: Cochrane Acute and Emergency Care
- a consumer representative
- a representative from Cochrane Pre-hospital and Emergency Care

b. Field Director

The Field Director will have the following responsibilities:

- to set and maintain the direction and scope of the Field
- to allocate CFA's resources in the way most appropriate to the achievement of its goals
- to promote the aims and work of Cochrane within the first aid field
- to develop and maintain links with organisations outside Cochrane
- to develop and maintain links with relevant Cochrane groups
- to attend Cochrane Colloquia and regularly report progress and developments in the Field to Cochrane
- to seek and secure sufficient funding to enable the Field to function effectively
- to supervise the field coordinators and other staff

c. Field coordinators

The Field Coordinators will include the following responsibilities:

- to provide the Field Director with administrative support
- to help organise meetings and promotional workshops
- to prepare and maintain the Field module in The Cochrane Library
- to coordinate the submission of the Field Monitoring document
- to prepare and produce a Field newsletter and/or maintain a Field website
- to maintain the Field database of contacts
- to work with other Cochrane groups to ensure that first aid issues are adequately addressed in Cochrane. This includes working with managing editors of the CRGs and senior editors of relevant Networks to ensure that high priority first aid reviews are conducted by Cochrane Review Groups.
- to coordinate the work of volunteer contributors; these individuals volunteer to collaborate toward achieving the goals of CFA based on their skills, competencies and areas of interest
- to assist with gap analysis and prioritization exercises conducted by CRGs and Networks
- to develop and set-up a register of Cochrane and non-Cochrane systematic reviews on first aid
- to develop e-learning materials
- to contribute to editorial work or actively contribute to systematic reviews if highly relevant to CFA

d. Members

Field members can voluntarily contribute to the team and will follow the guidance of the Field coordinators. Their activities can include promoting Cochrane in their community, reporting about CFA activities at conferences or within their own organisation, providing workshops, assisting with editorial work or peer review, leading or contributing to Cochrane reviews or contributing to CFA's KT activities.

11. Resources of the Field

The main costs associated with the set-up of this Field will be associated to the manpower needed for executing the main tasks of the Field. This manpower will be provided for by CEBaP of the Belgian Red Cross, which is structurally funded by the Foundation for Scientific Research of the Belgian Red Cross. This funding source can be considered stable. CEBaP will provide office space and an equivalent of 1.5 FTE to conduct the Field's main activities. In addition to this stable source of funding, CFA will also ask for an annual contribution (either financially or by providing manpower) from participating stakeholders, mainly to ensure a sense of ownership and involvement from all contributing parties.

To further ensure a sustainable Field, we will be on the lookout for other sources of funding, which may be project-based or in the form of travel grants. In our search for funding, we will adhere to Cochrane's policy on commercial sponsorship (16). All funds accepted by CFA will be free of conflicts of interest. A conflict of interest is defined as "a set of conditions in which professional judgment concerning a primary interest (such as patients' welfare or the validity of research) may be unduly influenced by a secondary interest (such as financial gain) or may be perceived to be influenced by a secondary interest." We will not accept funding from any source that has real or perceived interests, commercial or other, in the findings of any review or research project with relevance to our Field. In addition, all members of CFA will be asked to complete a conflicts of interest form prior to commencing their activities with CFA.

12. Timeline & milestones

In this section, we describe the three year timeline of our Field, and describe when we will achieve the different objectives and goals set forward previously in this strategic plan. This timeline has been proposed by the Field Director and coordinating team, but will be reviewed by the Field's advisory board during their first meeting.

Goals and objectives	**Time points for action concerning the goals and objectives**			
Goal 1: Network building	*Preliminary work*	*Year 1*	*Year 2*	*Year 3*
Objective 1.1.: Making sure the major players in the field of first aid take part in our Field. These include ILCOR, GFARC and others interested.	X	X		
Objective 1.2.: Aiming for a global representation in active contributors, by actively soliciting in our partner organizations for contributors.	X	X		
Objective 1.3.: Consulting our global partners about their evidence needs via a gap analysis, and translating this to the relevant CRGs.		X	X	X
Goal 2: Building demand/advocacy	*Preliminary work*	*Year 1*	*Year 2*	*Year 3*
Objective 2.1.: Contributing to the inclusion of Cochrane evidence in guidelines of the major first aid organizations worldwide.		X	X	X
Objective 2.2.: Building a register of first aid-related Cochrane and non-Cochrane systematic reviews.		X		
Objective 2.3.: Providing training on how to consult, read, interpret (Cochrane) systematic reviews and research evidence in general.				
Sub-objective 2.3.1.: Workshops at annual meetings		X	X	X
Sub-objective 2.3.2.: Development of E-learning materials				X

Goal 3: Knowledge translation outputs	*Preliminary work*	*Year 1*	*Year 2*	*Year 3*
Objective 3.1.: Contributing to the production of evidence-based guidelines		X	X	X
Objective 3.2.: Disseminating and repackaging of Cochrane evidence in easy-to-use formats for our stakeholders		X	X	X
Objective 3.3.: Promoting Cochrane at annual thematic conferences		X	X	X
Goal 4: Stakeholder engagement	*Preliminary work*	*Year 1*	*Year 2*	*Year 3*
Objective 4.1.: Engaging stakeholders by surveying their evidence needs: see 1.3.		X	X	X
Objective 4.2.: Demanding input on how Cochrane in general and CFA can increase its relevance for the field, via surveys among stakeholders.		X		
Goal 5: Involvement in review production	*Preliminary work*	*Year 1*	*Year 2*	*Year 3*
Objective 5.1.: Involvement in prioritization exercises (see 1.3.)		X	X	X
Objective 5.2.: Assisting CRGs with capacity issues to take on editorial work for reviews of high relevance to our Field, where capacity allows			X	X
Objective 5.3.: Conducting reviews for high priority issues where CRGs struggle to find author teams			X	X

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