Global Resuscitation Alliance

OHCA registry meeting

GRA 10 step program & Developing EMS/ ECS systems

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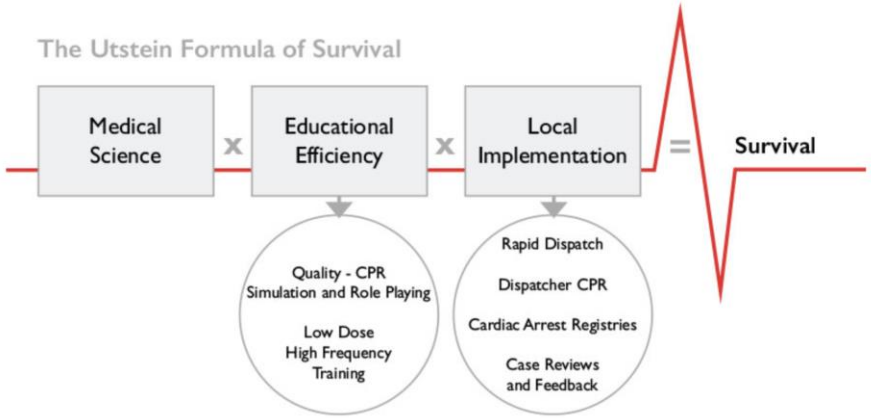
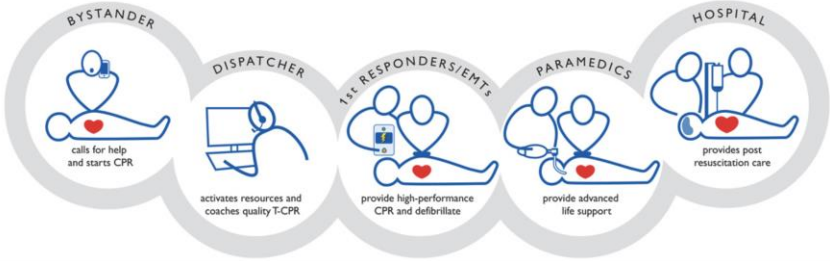
Global Resuscitation Alliance

What is GRA?

- The Global Resuscitation Alliance developed 10 steps to improve OHCA rates at an Utstein implementation meeting in Stavenger in June 2015
- Translate evidence based steps into implementation in the community
- Systems based approach to improving OHCA
- Facilitated by the Resuscitation Academy in respective countries





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The 10 Step Program

- **GRA 10-Steps**

1. Cardiac arrest registry
2. Telephone CPR
3. High Performance EMS CPR
4. Rapid Dispatch
5. Measurement of professional resuscitation using defibrillator
6. First responder AED program
7. Smart technologies for CPR/AED
8. Mandatory training for CPR/AED
9. Accountability
10. Culture of Excellence

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In 2015

Improving Survival from Out-of-Hospital Cardiac Arrest:

A Call to Establish a Global Resuscitation Alliance

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This document summarizes a meeting on how to implement best practices in community resuscitation held on June 6-7,2015 at the Utstein Abbey near Stavanger, Norway

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With contributions from the following additional participants at the Utstein Implementation Meeting:

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Meighan Girgus, *Chief Mission Officer, American Heart Association, USA*
Nalini Singhal, *Prof of Pediatrics Univ. of Calgary, Editor Helping Babies Survive, Canada*
Paul Gowens, *Lead, Scottish Government out-of hospital cardiac arrest program, UK*
Susan Niermeyer, *Prof of Pediatrics, Univ. of Colorado, Editor Helping Babies Survive, USA*
Tore Laerdal, *Executive Director, Laerdal Foundation, Norway*

**Contributing to the process leading up to the meeting, but unable to attend.*

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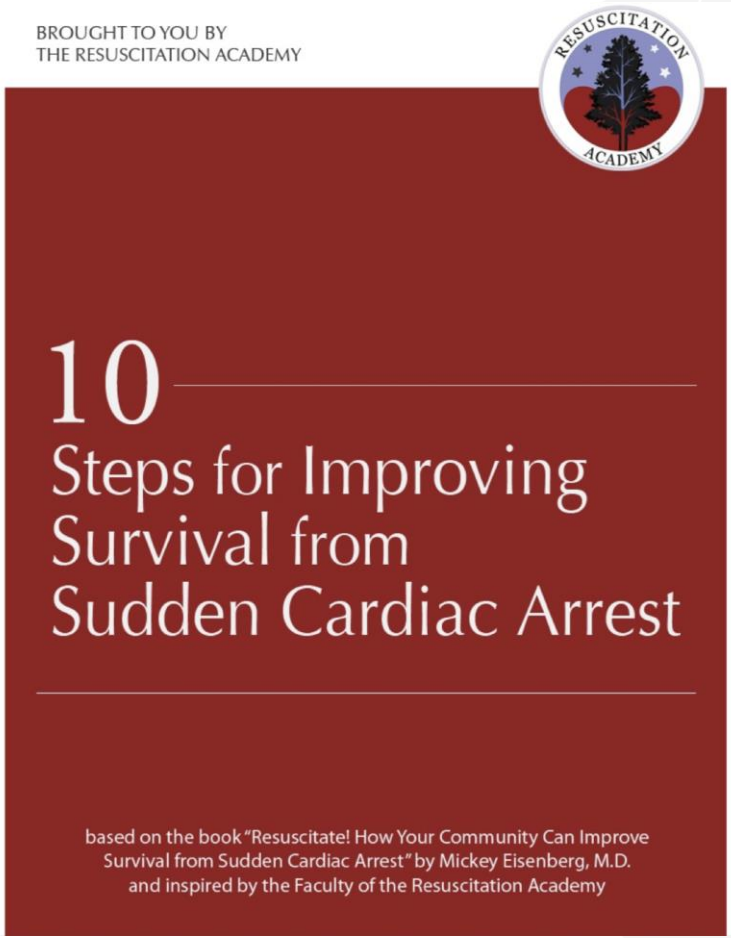
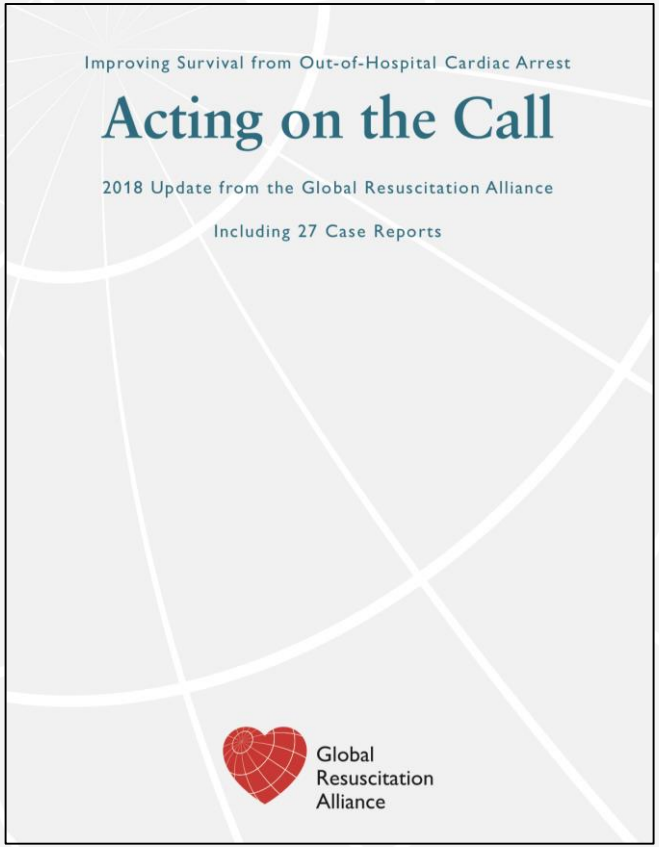
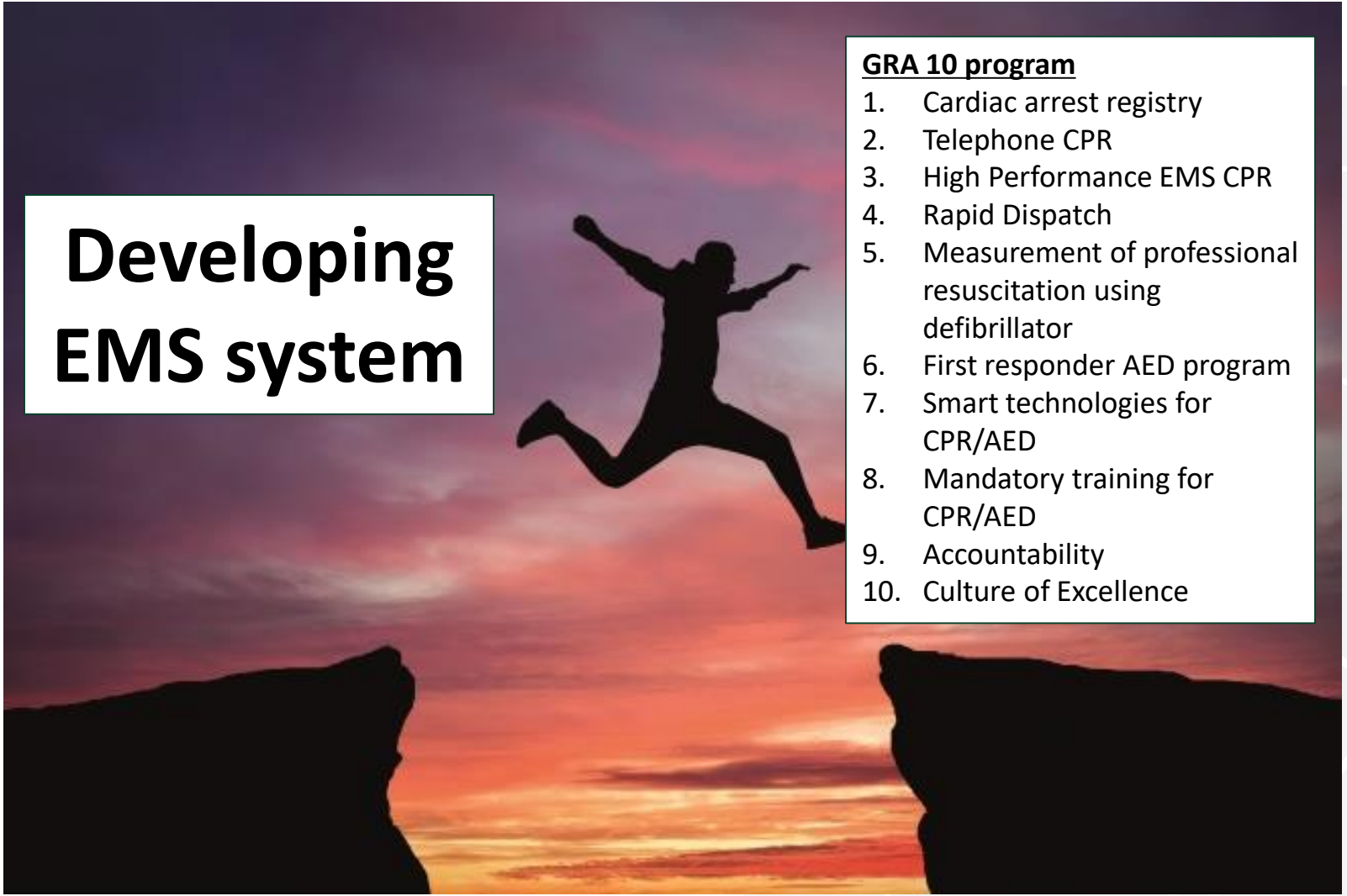
By 2018





In 2017

Developing EMS system



GRA 10 program

1. Cardiac arrest registry
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4. Rapid Dispatch
5. Measurement of professional resuscitation using defibrillator
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7. Smart technologies for CPR/AED
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9. Accountability
10. Culture of Excellence

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About the meeting

- 2 day meeting in Singapore, funded by Laerdal for developing ECS
- Meeting involved case studies & small group discussions to address key questions
- Covered 26 countries from nearly ever continent, across the income groups
- ~70 experts in the fields of Resuscitation, EMS and Global Health, with a focus on stakeholders from countries with developing EMS systems were invited

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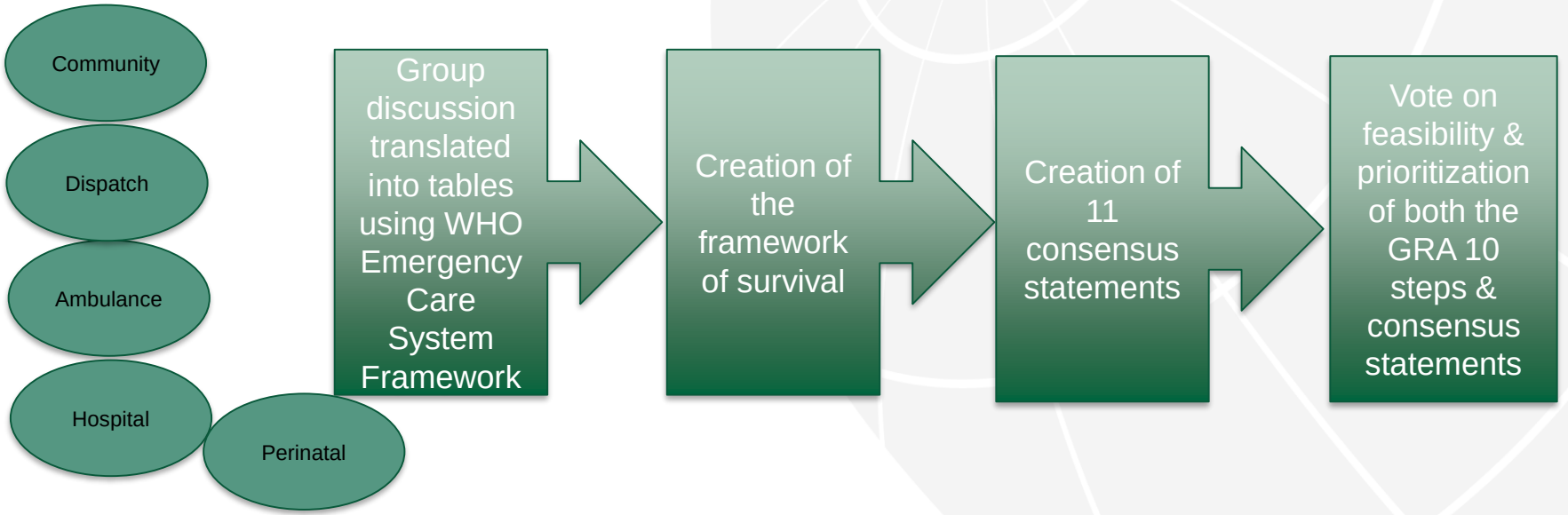
Process

- Team were divided into groups (Community, Dispatch, Ambulance, Hospital & Perinatal resuscitation)
- Questions were discussed within these groups and discussion points were tabulated



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Barriers

- Geographic constraints
- Poor Infrastructure
- Cultural mindset
- Lack of public awareness
- Lack of funding
- Low Public CPR skills
- Low AED availability & skills
- Low EMS Crew/dispatcher training
- Multiple, poorly regulated independent ambulance providers
- Ambulance crew training and attrition issues
- Hospital cooperativity and communications
- Data sharing issues

GRA 10-Steps

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Frame of Survival

for improving OHCA outcomes in developing EMS systems

Political commitment — Healtcare expenditure — Legislative environment — Basic state of preventive health — Traffic congestion solutions

Culture of excellence — Relationship w/ government, police, fire, hospitals — Quality improvement — Emergency care network

Strong EMS leadership

Cost-efficient smart technologies

Good Samaritan laws

EMS specialty development

Chain of Survival

Field to facility communication

Motivation of staff

Ambulance/ population ratio

Research projects

Health seeking behavior
Appropriate use of EMS

Willing and competent
Pool of bystanders CPR/AED

Practice of giving way to ambulance

Cultural views of death and resuscitation — Cultural willingness to help strangers — Research environment — Road conditions — Reliable telecommunications

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11 fundamental elements for improving OHCA survival in developing EMS systems

1. There is a set of standards of care for Emergency Medical Services (EMS)
2. The receiving healthcare facility has a functional emergency unit that is operational 24/7.
3. Data is available for analysis and for monitoring of Out-of-Hospital Cardiac Arrest (OHCA) outcomes
4. The healthcare facility network is capable of providing good continuity of care for patients.
5. There is a universal access number with centralised organisation for coordination of emergency care.
6. There is political commitment for effective implementation of the chain of survival
7. There is supportive legislation for bystander cardio-pulmonary resuscitation (CPR) and public access defibrillation (PAD).
8. The community is engaged and recognises the need for EMS and activates EMS accordingly.
9. There is investment in infrastructure to support EMS systems.
10. The EMS system is capable of achieving a timely response.
11. There is a good communication network within an emergency care network including EMS and healthcare facilities.

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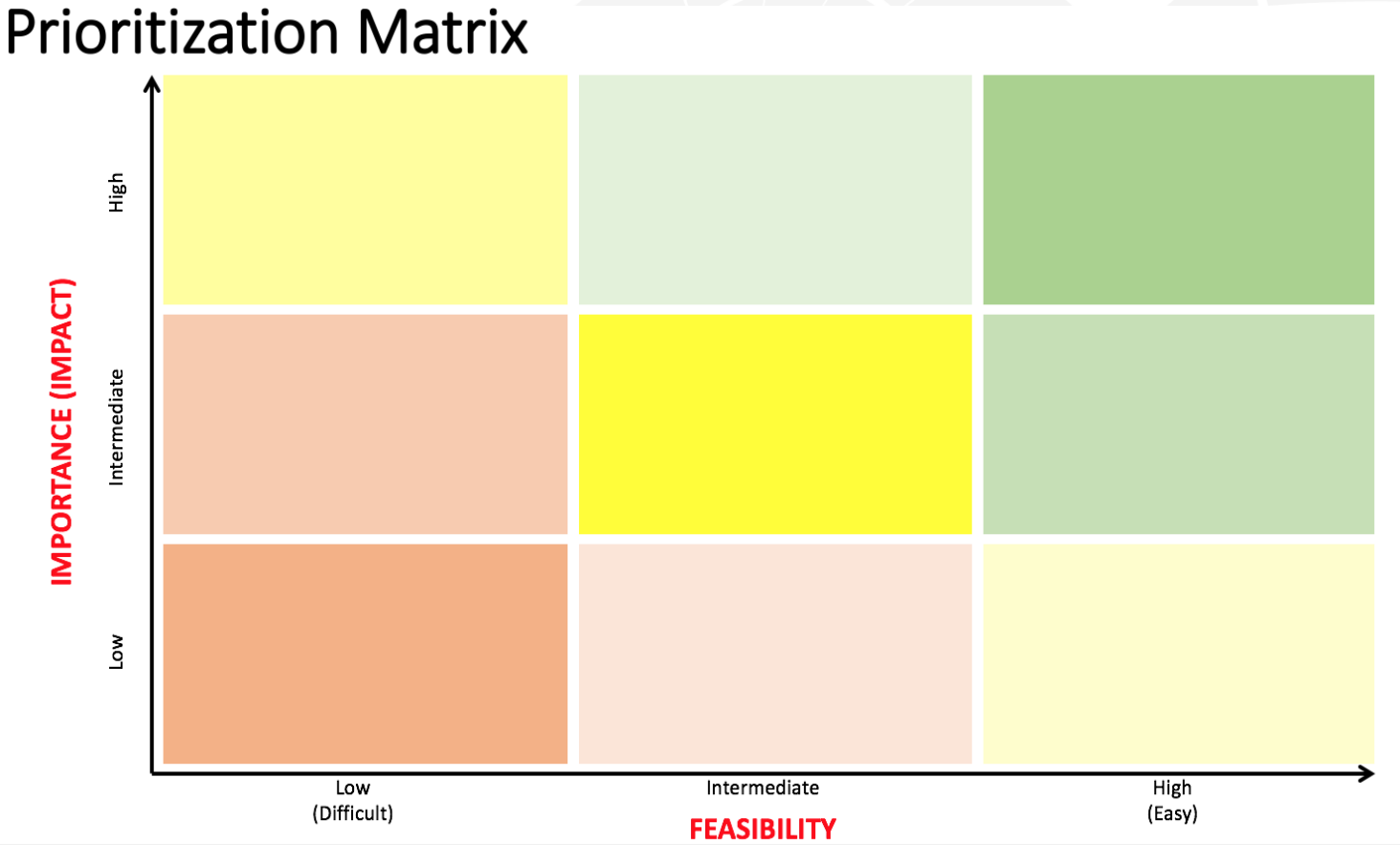
Placing the pre-requisites on the priority matrix



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Follow up

Resuscitation 132 (2018) 85–89

Contents lists available at ScienceDirect

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Commentary and concepts

Global resuscitation alliance utstein recommendations for developing emergency care systems to improve cardiac arrest survival☆

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Global Resuscitation Alliance
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ABSTRACT

Introduction: The Global Resuscitation Alliance (GRA) was established in 2015 to improve survival for Out- of-Hospital Cardiac Arrest (OHCA) using the best practices developed by the Seattle Resuscitation Academy. However, these 10 programs were recommended in the context of developed Emergency Care Systems (ECS). Implementing these programs can be challenging for ECS at earlier stages of development. We aimed to explore barriers faced by developing ECS and to establish pre-requisites needed. We also developed a framework by which developing ECS may use to build their emergency response capability.

Method: A consensus meeting was held in Singapore on 1st–2nd August 2017. The 74 participants were key stakeholders from 26 countries, including Emergency Medical Services (EMS) directors, physicians and academics, and two Physicians who sit on the World Health Organisation (WHO) panel for development of Emergency Care Systems. Five discussion groups examined the chain of survival: community, dispatch, ambulance and hospital; a separate group considered perinatal resuscitation. Discussion points were voted upon to reach a consensus.

Results: The answers and discussion points from each groupwere classified into a table adapted from WHO's framework of development for Emergency Services. After which, it was used to construct the modified survival framework with the chain of survival as the backbone. Eleven key statements were then derived to describe the pre-requisites for achieving the GRA 10 programs. The participants eventually voted on the importance and feasibility of these 11 statements as well as the GRA 10 programs using a matrix that is used by organisations to prioritise their action steps.

Conclusion: In this paper, we propose a modified framework of survival for developing ECS systems. There are barriers for developing ECS systems to improve OHCA survival rates. These barriers may be overcome by systematic prioritisation and cost-effective innovative solutions.

Resuscitation 133 (2018) 71–74

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Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Commentary and concepts

Global resuscitation alliance consensus recommendations for developing emergency care systems: Reducing perinatal mortality☆

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Keywords:
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Infant mortality
Developing countries

ABSTRACT

Perinatal and neonatal deaths account for an increasing proportion of deaths under 5 years old. We present essential elements to reduce perinatal mortality, barriers to establishing these elements, and the role of developing emergency care systems. Essential elements for prompt perinatal and postnatal care are categorised based on care-seeking behaviours, access to a primary care facility and for the severely ill, access to advanced neonatal care. The role of emergency care systems is key to overcoming obstacles currently faced in countries with high perinatal and neonatal mortality rates.

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Workshop for developing ECS systems

- Involves 4 activities with discussion
- Objectives:
  - Guide developing ECS Systems to improve their OHCA survival rates by implementing the GRA prerequisites to achieve the GRA 10 programs
- Specific aims:
  1) Understand the background and demographics of developing ECS
  2) Identify the barriers and the impact of each barrier
  3) Identify their level of implementation of the 11 pre-requisites
  4) Introduce the frame of survival & prioritisation matrix
  5) For the ECS to place the pre-requisites on the prioritisation matrix
  6) To work on most important and feasible prerequisite using ‘Systems of change’ framework

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Importance of a registry

1) Allow for audit and QI
2) Measure the impact of the intervention on the OHCA survival rate
3) Data available to measure cost-effectiveness of an intervention; more crucial in settings with limited resources
4) Data to be used to convince stakeholders
5) To compare outcomes with other countries

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Barriers for a registry in developing systems

1) Infrastructure issues
2) ‘Buy-in’ from stakeholders
3) Willingness to share data
4) Data collection issues
5) Other priorities besides cardiac arrest
6) Patient confidentiality issues

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Setting the stage to overcome barriers

- Myths of developing ECS- the need to dymystify

1. Developed country=developed ECS system
2. ECS has a limited role in Global Health *(i.e: Global health funding should be aimed at public health, ID, primary care)*
3. Minimal financial gain from development of EMS systems in low, middle income countries

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4. Resources are scarce in a developing county; hence little role for funding for OHCA
5. Basics need to be sorted, before talking about ECS & OHCA
6. Most of the population lies in developed ECS
7. Developing EMS systems can easily apply international standards to improve OHCA rates

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Setting the stage to overcome barriers…

- 2 day workshop
  - Day 1: Understanding their system
    - Self reflection
    - Group discussion of barriers and solutions
    - Sharing of cases/ success stories
  - Day 2: Working on a “low hanging fruit”, which includes setting up a registry

  - Providing guidance & support to set up a registry

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Day 2: Working on a “low hanging fruit”

1) Background
2) Vision
3) Aims & SMART objectives
   - Specific
   - Measurable
   - Achievable
   - Relevant
   - Timebound
4) Stakeholder
5) Team
6) Project plan
7) Evaluation & measurement strategy
8) Business case & economics
9) Sustain & embed
10) Succession planning

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Thank you!!

Any questions?

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