

Out of Hospital 12-Lead ECG Program Planning and Implementation Guide

The success of any new program lies in the planning and implementation before the actual program begins. A successful out-of-hospital 12-lead ECG program involves many components of patient care, from initial contact through hospital admission. Although each service and community has unique factors and issues to consider, there are common points to address. These points include: assessment of the current status, identification of all key components and participants, development of goals, ongoing communication and coordination, training, equipment installation, and continued evaluation for quality improvement. The amount of time and attention spent on each point will vary according to the needs of your service and community.

♥ Indicates resources are available from your Medtronic Physio-Control consultant.

Suggested Timeline

6 to 12 Months Prior to Program Start

- Introduction and Information gathering
 - Review literature, national recommendations and standards♥
 - Survey other systems/communities♥
 - Analyze data on your service
 - Dispatch practices
 - Scene and transport times
 - Treatment standards
 - Recent trends in the community
 - Time to treatment
 - Patient outcomes
- Preliminary Planning
 - Identify key components and participants
 - Community
 - Prehospital
 - Hospital
 - Gather steering committee and define leadership roles
 - Appoint governing body and medical director
 - Discuss feasibility and justification
 - Establish goals and objectives
 - Define measurable results
 - Set timeline for measurements
- Develop working format
 - Meetings and communication process
 - Address political concerns
 - Initiate interaction and discussion among all components
 - Identify potential barriers
 - Negotiate financial responsibilities
 - Costs: organizational, equipment and training
 - Funding and reimbursement
 - Outline implementation plan
 - Select a program coordinator

3 to 9 Months Prior to Program Start

- Complete staffing
 - Program Coordinator
 - Data Collector
 - Trainers
 - Supporters
 - Administrative
- Define equipment needs♥
 - EMS
 - Out-of-hospital
 - Hospital
 - Data collection, transfer and retrieval♥
- Order equipment♥
 - Confirm delivery date
 - Identify locations
 - Clarify installation process
 - Define maintenance program
- Establish protocols
 - Review present protocols and policies
 - Dispatch
 - Prehospital
 - Hospital
 - Develop new protocols♥
- Plan Training Program♥
 - Review present training
 - Define levels of proficiency
 - Identify training needs and resources
 - Select trainers
 - Develop learning objectives
 - Obtain or develop training tools
 - Outline training timeline
 - Include ongoing skills review program

2 to 3 Months Prior to Program Start

- Increase awareness of program♥
 - Keep participants updated and involved
 - Report program status to key individuals and groups
 - Publicize program to future participants and trainees
 - Generate enthusiasm among out-of-hospital and hospital personnel
- Training♥
 - Initiate training in concept of out-of-hospital 12-lead ECG
 - Define and identify individual roles and expectations
 - Pilot training program

1 to 2 Months Prior to Program Start

- Training♥
 - Initiate training on protocols and equipment
- Gain community and public support♥
 - Press releases on prehospital 12-lead concept and community plans
 - Draft press releases celebrating early successes at kick-off
 - Community presentations

Start of Program

- Kick-off
 - Communicate initiation of program with all participants
 - Celebrate kick-off of program
 - Begin data collection on new program

1 Week into Program

- Training
 - Identify additional training needs
 - Initiate continuing educational support

1 Month into Program

- Review
 - Initial cases and the process
 - Training
 - Skills review
 - New content
 - Program equipment needs and placement♥
 - Identify program weaknesses
 - Review barriers and their impact
- Collect
 - Success stories and publicize♥
 - Case studies♥
 - Problem-solving techniques

2 Months into Program and Beyond

- Quality Improvement
 - Ongoing data collection
 - Case review
 - Process review
 - Equipment performance and maintenance♥
 - Training and updates
 - Incorporate 12-lead ECG skills review in refresher courses
- Communications
 - Periodic review with all participants about program
 - Publicize outcomes and results to all involved

Resources

Aufderheide TP, Kereiakes DJ, Weaver WD, et al. Planning, Implementation, and Process Monitoring for Prehospital 12-Lead ECG Diagnostic Programs. *Prehospital and Disaster Medicine*. 1996;11 (3): 162–171.

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Staffing and Equipping Emergency Medical Services Systems: Rapid Identification of Acute Myocardial Infarction. National Institutes of Health, National Heart, Lung and Blood Institutes, NIH publication # 93–3304, September 1993.

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