

Mass Cardio-Pulmonary Resuscitation: A New Method of Public Cardio-Pulmonary Resuscitation Teaching

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Summary

A mass CPR (cardio-pulmonary resuscitation) teaching programme, believed to be the first in Malaysia, was held at the Dewan Tunku Canselor, University of Malaya (UM) on Saturday, 13th July 1996. Organised by the Resuscitation Committee of University Hospital, Kuala Lumpur, this programme was conducted for 200 first year UM students.

We describe the organisation of this non-traditional and non-threatening, new CPR teaching programme and propose that this be further developed for the dissemination of CPR skills to our Malaysian public.

Key Words: Mass CPR, Public CPR teaching, CPR skills

Introduction

Survival of a cardiac arrest victim depends on a series of important actions - early access of emergency medical services (EMS) system, early CPR, early defibrillation, and early advanced life support - otherwise known as the Chain of Survival¹. The administration of bystander CPR before arrival of EMS can double the likelihood of survival². This probability can thus be maximised if a lot of lay persons are trained in CPR.

CPR teaching is commonly conducted over a period of 1 to 1 1/2 days and this usually consists of didactic lectures, practical sessions and written/practical examinations. For most courses, the number of participants is limited to between 20 - 40, depending on the number of instructors and manikins. Even so, the total time available for hands-on practice per participant is hardly 10 - 15 minutes.

The Resuscitation Committee of University Hospital, with the financial backing of BAKTI, launched its first mass CPR teaching programme to 200 first year UM students from the faculty of Medicine (Bachelor degrees

in Medicine, Pharmacy, Biomedical Science and Nursing). A new technique of CPR teaching employing a large number of instructors (14) and facilitators (60) plus the use of many manikins (60), was tried in this programme. Emphasis was given to adult learning techniques of stressing on hands-on practice and doing away with examinations. The aim was to conduct CPR training to a large number of participants in a short period of time.

Materials and Methods

The organising committee for this programme consisted of 8 medical specialists (4 consultants and 4 lecturers), 3 nursing sisters and 2 administration staff. Three other nurses (1 sister and 2 staff nurses) were recruited into the team of instructors which totalled 14 (8 doctors and 6 nurses). Sixty final year medical students, trained in CPR during their medical training (at 1st and 3rd years) and again by our team of instructor-trainers, were used as facilitators. The participants were first year UM students who had enrolled into four different courses under the Faculty of Medicine. Sixty half-torso manikins

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(20 of Laerdal's *Little Anne*, 20 of Ambu's *Multi-man* and 20 of Vital Signs' *Actar 911*) were purchased and used for the programme.

Participants were divided into two groups for the two 2-hour sessions, one at 1000 - 1200 hours and the other at 1400 - 1600 hours. Each manikin had a facilitator and a

maximum of two participants. Teaching and demonstration of CPR (1-rescuer and 2-rescuer) plus choking, following the American Heart Association guidelines were done on-stage by trainers and was televised via closed circuit TV (CCTV) system to fourteen 29-inch colour TV monitors throughout the hall (Figure 1).

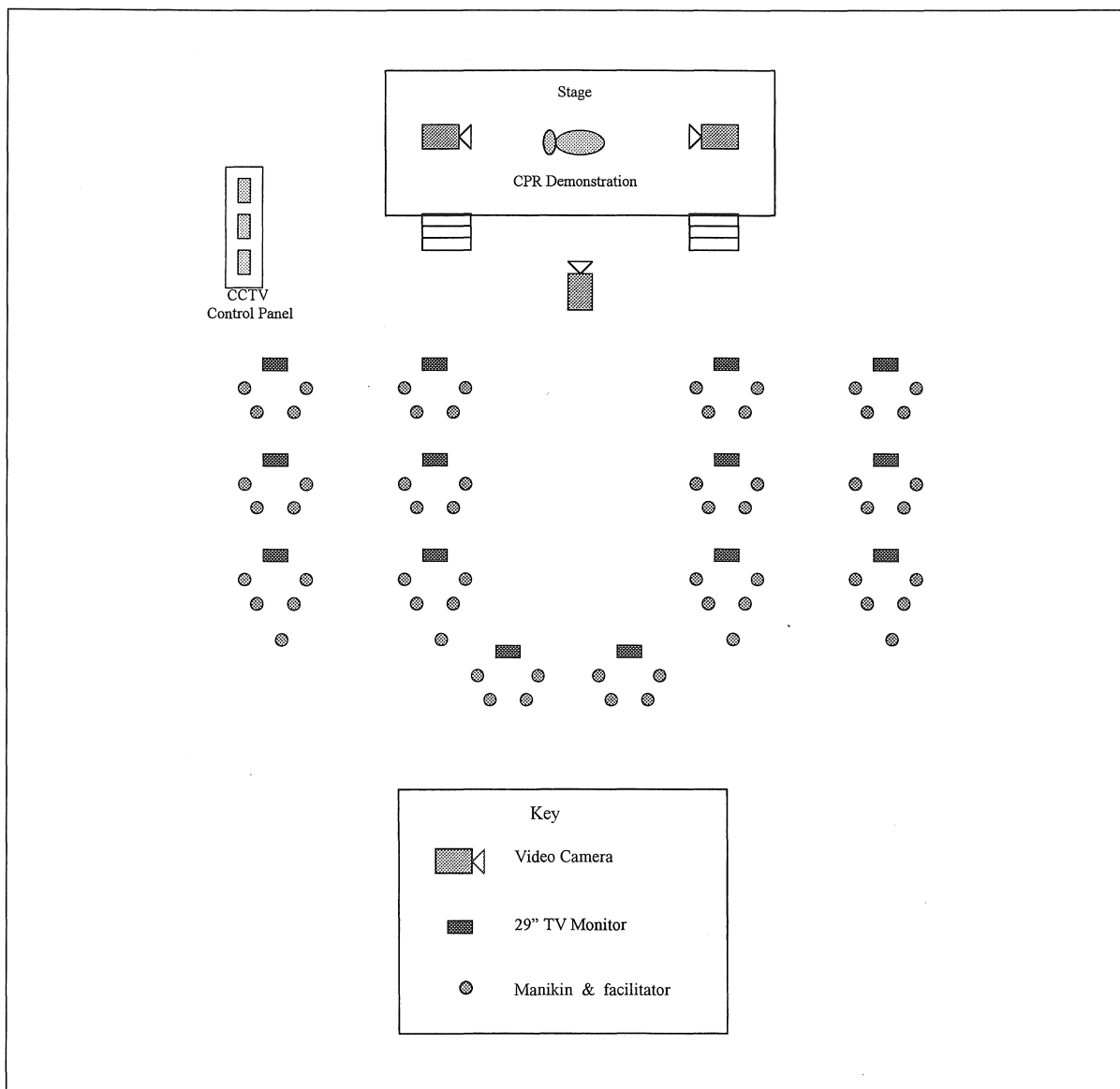


Fig 1: Plan of mass CPR programme layout at Dewan Tunku Canselor, University of Malaya.

The Programme

After the official opening ceremony, the audience was entertained to a drama performed by the final year students. This depicted two different scenarios of cardiac arrest situations. One had no bystander CPR but with a fatal outcome while the other had an immediate bystander CPR and resultant recovery. The idea was to increase public awareness regarding the importance of early bystander CPR as a determining factor in the survival of cardiac arrest victims.

During the CPR teaching sessions, instructions given by the trainers on-stage were televised via CCTV system and these were further repeated by each facilitator. Pairs of participants took turns to perform the techniques on their manikins. To further reinforce their learning skills, synchronised performance for all participants were carried out to the timing beat of the trainers on stage. Other instructors freely roamed around the hall to check on progress, correct mistakes and also provide positive encouragement to the participants.

Towards the end of each session, volunteers among the participants were called to the stage to perform their newly learned skills.

Discussion

The idea of a mass CPR teaching was introduced by the University Hospital Resuscitation Committee as a means of increasing the number of people in our community who could be prepared to help in the event of cardiac arrests. In our case, it was a trial run as the participants were specifically chosen. In previous years, CPR teaching, which is a requirement of the medical faculty on newly enrolled students, was only done in small groups. This took the toll on the few dedicated instructors who had to do repeated and tiring sessions over a full week during the students' orientation week.

The wide space area and enclosed nature of the hall provided a very spacious and relaxed atmosphere for the participants to try these new hands-on learning skills. This was certainly very conducive for the purpose of this programme.

Traditional CPR teaching has a number of disadvantages. Firstly, a course period of 1 to 1 1/2 days may be too lengthy for some, especially those who cannot afford time off work or study. Secondly, didactic lectures may be boring for the unmotivated lay public, more so if confusing medical jargons are frequently used. Thirdly, practical hands-on sessions are usually very limited in terms of duration and the number of manikins available. Lastly, a number of people are discouraged from learning CPR because the idea of written or practical examinations is somewhat threatening, and hence off-putting. A failure in any of these may have lasting negative effect on future CPR performance. On the other hand, examination success doesn't necessarily guarantee competency in these skills.

This new method of mass CPR teaching uses adult learning techniques. It certainly overcomes most of the above disadvantages of traditional CPR teaching. Furthermore, the highly encouraging atmosphere during the programme and the issuance of certificates of attendance seem to be very appealing to our Malaysian public.

However, a major drawback would be the magnitude of organising personnel and financial backing such a programme would require. We were fortunate to have had strong support from various agencies, both within the public and also private sectors. Without these, such a big programme would probably not have succeeded.

Conclusion

The launching of our mass CPR programme marked yet another important milestone in the teaching of CPR in Malaysia. Strong financial support is a major determining factor in its success that needs to be seriously looked into when organising future programmes. We are of the opinion that this method of CPR teaching should be further developed for the dissemination of CPR skills to our Malaysian public.

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Mass CPR Sub-committee

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