



**Service Priorities and Programmes**  
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**Cardiopulmonary resuscitation knowledge retention after a structured retraining program for family physicians working in Kowloon Central Cluster FM & GOPC Department**

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**Introduction**

Sudden cardiac death occurs around 40/100.000 persons annually in Asian countries. Early activation of emergency medical systems (EMS), cardiopulmonary resuscitation (CPR), early defibrillation, advanced life support and skilled post-resuscitation care are critical to improve survival. Overseas research indicated that retaining CPR skills and knowledge deteriorates over time, around 6 – 18 months.

**Objectives**

The investigators wished to observe CPR knowledge retention rate for family doctors working in Hong Kong. A group of 37 family physicians working in Kowloon Central Cluster (KCC) General Outpatient Clinics (GOPC), with various levels of family medicine (FM) training, and who were attending an organized re-training program for CPR, tested their CPR knowledge via a multiple choice questionnaire (MCQ), then followed them through 12 months with retesting at 3 monthly intervals, to observe for any change in the level of retained CPR knowledge after training.

**Methodology**

We used the mean post-test score as the reference point, and compared the mean scores for the group at 3, 6, 9, and 12 months. There was a drop-out rate of 49% by 9 months. We used single factor ANOVA analysis to see if the mean score changes were statistically significant. The mean score differences for the whole group were not statistically significant, with the mean around 10 – 11 (out of 15 questions). We also analysed each interval mean score with the post test score with 2 tailed Student T test to see if there was any statistical significance, but could not find any.

**Result**

CPR knowledge retention for this group after re-training appears to be quite constant,

and did not change significantly from post-test scores, even after 12 months. Possible explanations were participants memorized their answers and completed each interval MCQ the same. The primary investigator did not find any evidence this was occurring, as the participants' answers differed each interval period. Another possible explanation was that inadvertently through repeated 3 monthly testing, the participants CPR knowledge was reinforced and they beneficially helped the participants to remember more. Problems encountered throughout the study included the small sample size and the drop-out rate of 49% after 9 months. This study concluded that with regular interval reminders, knowledge retention could be maintained up to a period of 12 months.