Assessment of Quality Cardiopulmonary Resuscitation during GIC (General Instructor Course) courses

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Purpose of the study: the quality of cardiopulmonary resuscitation (Q-CPR) manoeuvres has been assessed during the **GIC courses** hosted by the Italian Resuscitation Council (IRC). **The aim was to evaluated CPR quality among the IRC instructors candidate.**

Materials and methods: the study was performed in participants to **4 GIC courses** hosted at the IRC headquarter in Bologna, Italy. Basic life support (BLS) training stations were equipped with QCPR mannequin (Resusci Anne, Laerdal Medical, Stavanger, Norway) and a laptop to acquire QCPR data. Participants performed **2 cycles of 2 min CPR with a 30 chest compressions:2 ventilations ratio**. The first cycle was without quality feedback (NO-FB), while the second was with the feedback (FB). An interval of 2-3 min was interposed between cycles to allow for fatigue release.

Results: A total of **43 course participants** of **37±9 age** were tested. **Sixty three percent were male** and the average body weight was **74±14 kg**. Ten were doctors, while 33 were nurses. Overall, CPR manoeuvres were of good quality in **71%±12** of instances in the NO-FB group and increased to **79%±10 (p<0.01)** in the FB one. This difference was mainly related to an increase of CC depth of **2 cm**, a reduction of the hands-off time of **3 sec**, and a concurrent **10% improvement in correct chest recoil** (Table 1). Ventilation pattern were equivalent in both groups.

Table 1	No Feedback	Feedback
Hands-off time, sec	30±8	27±7
Total compression, no.	163±23	160±16
Chest compression depth, cm	50±9	52±6
Correct chest recoil, %	75±32	85±27
Tidal volume delivered, ml	552±88	550±51
Ventilation/min, no.	9±2	9±1

Conclusions: The overall Q-CPR was already good in the participants to GIC courses. Nevertheless, the addition of a **FB help contributed to ameliorate the single aspects of CPR manoeuvres leading to a further significant improvement in the overall quality.**

Reference: Abella BS. High-quality cardiopulmonary resuscitation: current and future directions. Curr Opin Crit Care. 2016 Jun;22(3):218-24.

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