

EXTEND TIME COULD LEAD TO REDUCE IT!

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Background and aims

ILCOR publishes guidelines for newborn resuscitation and recommends proceeding in a step-by-step manner. Positive pressure ventilation (PPV) (step B) should be initiated if the infant is not breathing or if the heart rate is less than 100 bpm after step A has been completed. In the 2015 recommendations time to complete step A was extended.

Do the new guidelines of ILCOR change the execution of steps A and B in simulated newborn resuscitation scenarios?

Methods

Training sessions are part of the mandatory teaching of newborn resuscitation for first-year pediatric residents in the entire Paris region. The same educational progression was maintained in all the sessions.

The training sessions were separated into two periods, before and after 2015 guidelines.

We included all the scenarios which required PPV after completion of step A. We excluded the scenarios without required PPV. We defined nine, step A and step B required tasks. Video footage of all scenarios were reviewed by two certified instructors.

Results

For the study, 336 residents completed a total of 184 scenarios during the simulation-based training; 157 students completed 85 scenarios in period 1, and 179 students completed 95 scenarios in period 2. We included 124 scenarios, 48 in the first period and 72 in the second period. All residents participated in at least one scenario. Results are summed up in tables .

	Period 1 N=48	Period 2 N=72	p (anova)
Time of PPV start (second)	58.08 ± 15.9	57 ± 14	NS
Tasks executed within 1 minute (n=9)	7.58 ± 1.02	8.09 ± 0.77	p=0.0022

Time of PPV start during sessions in both two periods (seconds)	Scenario 2	Scenario 4	Scenario 5	p
Period 1	61 ± 18	56.8 ± 15	54.8 ± 14	NS
Period 2	63 ± 9	53 ± 11	50.7 ± 9	P=0.0049

Conclusions

PPV start was not significantly different in the two periods. Completion of tasks was better in period 2. We hypothesize that less time pressure leads to better results and doesn't delay PPV.