

Reducing chaos: Redesigning the Adult Resuscitation Process

Alesia Carpenter MSN, RN, ACNS-BC, Elizabeth Carlson MSN, RN, CCRN, CNRN, SCRN, Tonja Schroder MSN, RN, CPN | HCA

Strategy and Implementation

Purpose

To disseminate a new team based adult resuscitation process at a large urban hospital

Background Opportunities Actual and were simulated adult discussed and Review of identified at the resuscitations trauma Code Blue revealed a lack resuscitation committee. of team literature Code Blue member role supports the team members assignments need for clearly voiced need fo identified team thus role necessitating a roles and clarification, need to closed loop delineation as improve communication identification well as which leads to restricting the and improved number of staf communication patient responding to between team outcomes. a code blue members. event.

References

Armenia, S., Thangamathesvaran, L., Caine, A. D., King, N., Kunac, A., & Merchant, A. M. (2018). The Role of High-Fidelity Team-Based Simulation in Acute Care Settings: A Systematic Review. Surgery journal (New York, N.Y.), 4(3), e136-e151. doi:10.1055/s-0038-1667315

Capella, J., MD, Smith, S., MD, Philp, A., MD, Putnam, T., MD, Gilbert, C., MD, Fry, W., MD, ReMine, S., MD. (2010). Teamwork training improves the clinical care of trauma patients. Journal of Surgical Education, 67(6), 439-443. doi:10.1016/j.jsurg.2010.06.006

Hoang, Tuan N., MD, FACS, Kang, Jeff, MD, FACS, Siriratsivawong, K., MD, LaPorta, Anthony, MD, FACS (Ret.), Heck, A., PhD, Ferraro, J., BSN, Walsh, J., OMS III. (2016). Hyper-realistic, team-centered fleet surgical team training provides sustained improvements in performance. Journal of Surgical Education, 73(4), 668-674, doi:10.1016/i.isurg.2016.03.004

The authors wish to thank Carlin Smith, MSN, RN Nurse Educator at the Charles George VA Medical Center-Asheville, NC for her assistance



Data

		Inde	epend	dent S	ample	s Test		
Levene's Test for Equality of Variance					t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Comfortable Responding	Equal Variances Assumed	3.310	.072	-2.776	98	.007	383	.138
	Equal Variances not assumed			-2.754	81.640	.007	383	.139
Improved Knowledge	Equal Variances Assumed	21.407	.000	-2.108	98	.038	082	.039
	Equal Variances not assumed			-2.066	48.000	.044	082	.040
Role Understanding	Equal Variances Assumed	28.917	.000	-2.383	98	.019	102	.043
	Equal Variances not assumed			-2.335	48.000	.024	102	.044
Perform Confidently	Equal Variances Assumed	14.182	.000	-1.884	98	.063	124	.066
	Equal Variances not assumed			-1.874	88.955	.064	124	.066
Role Stickers	Equal Variances Assumed	93.116	.000	-4.514	97	.000	420	.093
	Equal Variances not assumed			-4.412	59.881	.000	420	.095

Significant differences were identified pre and post on all items except for ability to perform confidently in a code.



A didactic review of the 2015 American Heart Association ACLS guidelines, current code blue response including a review of the rapid sequence intubation kit, intraosseous needle placement, defibrillation and code blue documentation review was provided.

A high fidelity simulated code was conducted utilizing the current process with video recording followed by an initial debriefing. Video debriefing identified the following opportunities for improvement: multiple team leaders, overlapping roles, lack of closed loop communication, incomplete code documentation, unfamiliarity with code cart content and defibrillator.

After initial debriefing enhancements to the hospital based resuscitation process were introduced. This included role identification stickers, role of unit based team lead/supervisor. code blue team leader responsibilities, code cart content and defibrillator review.



A second high fidelity simulated code using the new role sticker process with video recording followed by debriefing was completed. Video debriefing demonstrated improvement in team pased resuscitation with role identification stickers being assigned by the unit based team lead/supervisor. Improved closed loop communication, a clearly identified team leader role and nhanced code record documentation were al



Outcomes

- · A total of fifty-one participants have completed the program, this included thirty-three nurses, eight respiratory therapists, seven residents and three pharmacists.
- Forty-eight participants completed pre-program survey; fifty-one completed post-program survey.
- Pre-program ninety-two percent indicated attending a mock code class would increase knowledge and understanding of adult resuscitation roles.
- Post-program 100% indicated program attendance improved knowledge and understanding of resuscitation roles.
- Initially 61% thought role identification stickers would improve team communication; post-program 94% strongly agreed the sticker process did improve team identification and communication.

Conclusion

To date, role identification stickers have been implemented on ten inpatient nursing units. Stickers have been placed in red notebooks a top the adult code carts. Unit leaders to include nursing, respiratory, pharmacy and medical staff have been notified of the process change.

Implications for Practice

Simulation based team resuscitation model will continue to be incorporated in future mock code classes, ACLS sessions and in situ mock codes for inter-professional staff across the system.