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Sedation-assisted Orthopedic Reduction in Emergency Medicine: The Safety and Success of a One Physician/ One Nurse Model

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Vinson DR, Hoehn C: Sedation-assisted Orthopedic Reduction in Emergency Medicine: The Safety and Success of a One Physician/One Nurse Model. *West J Emerg Med.* 2013;14(1):47-54.

To the Editor:

We applaud Vinson and Hoehn for eloquently demonstrating that the performance of sedation assisted procedures in the emergency department (ED) does not necessarily require a 2 physician team. From a Canadian perspective, where single physician coverage in smaller EDs is common, this has important implications in terms of efficiency of patient care, reduction in the need for patient transfer and decreasing the time to definitive treatment for ED patients. We would like to draw attention to a model of care practiced in Halifax, Nova Scotia for over 15 years, using a team consisting of an advanced care paramedic (ACP) and a single physician, the former to conduct the sedation, and the latter to do the procedure.¹ The skills of ACPs complement specific supplementary training in Procedural Sedation and Analgesia (PSA) to produce, in our opinion, expert ED sedationists, and our database of over 4000 safely conducted PSAs attest to this. Although performing PSA is primary role of ACPs in our ED, success with this has expanded our use of paramedics to a number of other ED tasks, freeing up other staff to perform what they do best.²

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In reply:

Campbell and Froese are to be commended for having designed and implemented an admirable system of care for emergency department (ED) procedural sedation.¹ Their one physician/one paramedic model is akin to our one physician/one nurse model, as both employ specially trained and supervised personnel to administer sedation medications and give all their skill and attention to monitoring patient status during the procedure and throughout the recovery. The analysis they published demonstrates that in their hands this approach to emergency sedation optimizes patient care, promotes procedural efficiency, and ensures patient safety.¹

We also appreciate their emphasis on the generalizability of our shared one physician model to the many EDs around the world where single-physician coverage occurs for some portion of the day (or, more likely, night). In this very common setting a department has to put available resources to their best use, having emergency personnel exercise their respective training and skills in a complementary fashion. As Campbell and Froese put it, this allows staff to perform “what they do best.” Emergency nurses (and advanced care paramedics in the case of Queen Elizabeth II Health Sciences Centre in Halifax, Nova Scotia) are experienced and facile in parenteral drug administration and careful monitoring of cardiorespiratory parameters. Emergency physicians are trained and adept at ordering the right medications for the situation, performing the necessary procedures, and being prepared for rescue airway intervention if indicated.

The safety of the one physician/one nurse model is further supported by its broad use in non-acute care settings. We cited a number of references in our paper of its safe use by gastroenterologists.^{2,3} Casting the net even wider, many dentists in this country are trained to perform procedural sedation, and they include propofol in their pharmacopeia.⁴ The American Dental Association requires the presence of one additional person beyond the dentist for moderate sedation and 2 additional persons for deep sedation and general anesthesia.⁵ These ancillary personnel are required only to have completed a Basic Life Support course for the healthcare provider. Also, “when the same individual administering the deep sedation or general anesthesia is performing the dental procedure, one of the additional appropriately trained team members must be designated for patient monitoring.”⁵ And in the dental office, this monitor is customarily a dental assistant, or occasionally a registered nurse.⁴ In fact, with additional training, the dental assistant in some states is authorized to

draw up and administer intravenous agents for deep sedation under direct supervision of a dentist.⁶ Strangely, the same drug administration that is entrusted to dental assistants is being questioned as unsuitable for sedation-trained registered nurses who specialize in emergency care.⁷

As the evidence suggests, a 2 person team is often all that is needed for sedation-assisted procedures in emergency medicine. Studies show that the one physician/one nurse-equivalent model is both safe and effective. And in these days of limited resources and growing cost consciousness, this leaner approach has even more going for it.

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