A Case for Case Reviews

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When you hear hoofbeats, think horses and not zebras.” Our new locum tenens attending physician admonished my emergency nursing colleague by invoking a common metaphor. This use of the metaphor suggested that the patient’s problem was most likely a common diagnosis and not a rare or unusual disease. This is usually sound advice to maintain efficiency in a crowded and under-resourced emergency department. My colleague seemed to silently weigh the risks and benefits to the patient of each course of possible action, including what it would mean to repeat his request, and with what urgency. He chose to remain silent in the exchange, nodded professionally, and walked past us whispering a barely perceptible, “Just wait until the good doctor learns about the zonkeys.” We concealed our knowing smiles as his humor diffused the interpersonal tension. We knew he was referring to the local zoo’s zonkey, the crossbred offspring of a zebra and donkey. As a high-performing team, we trusted our colleague to speak up again if it was a matter of immediate patient safety and would have offered our mutual support. We could also trust our colleague to creatively advise and empower the patient to seek additional and specific testing on an outpatient basis. This nurse knew in depth which expert local providers would be empathetic to the patient’s concerns if the patient wished to pursue further diagnostic testing.

In hindsight, there was so little to laugh about when examining the outcomes of the exchange. My expert emergency nursing colleague was in graduate school to become a nurse practitioner. He was from a local, low-income background and understood the community, the resources, and the power dynamics, as well as the clinical care applications in the emergency department. Once he completed his nurse practitioner credentialing process, he moved into another specialty where his skills were valued and supported by the entire interdisciplinary clinical team. In turn, he then recruited another exceptional emergency nurse coworker to follow in his footsteps.

We had a stellar team of attending physicians who earned our great respect in the ED setting. In the rural setting, we also worked many nights and weekends with physicians who were not board-certified in emergency medicine but were willing to cover the shift with exceptional backup support from anesthesia on call or advanced paramedics should emergent intubation or other acute stabilization skills be required. We rapidly formed high-functioning clinical teams with numerous newly introduced locum tenens physicians. Although most of these clinical teamwork experiences were outstanding, they were not always so. The hospital organization required a provider with physician credentials to meet reimbursement and regulatory standards set by national decision makers. These national decision makers may have no inkling about the local problems, resources, or dynamics in this rural community. There were instances where these regulatory and reimbursement requirements extracted a great financial expense from the community without an equivalent return on this monetary investment in high-quality, competent, and culturally appropriate clinical care. I have little doubt that the community would have been better served if the nurse practitioners, who were often lifelong members of the community themselves, had been welcomed, valued, invested in, trained, and supported to function to the full extent of their professional potential. This full extent of professional potential could include serving in the attending provider role when needed, after adequate training preparation with interdisciplinary preceptors who currently serve in this role. As a specialty, we can hemorrhage our best and brightest colleagues to positive career paths, trajectories, and progressions where medical teams and leadership authentically integrate and elevate the full value of advanced practice nurses’ contributions. As nursing practice evolves to meet the health care needs of the public, the integration and delineation of emergency medical, nursing, and advanced practice roles and responsibilities simply cannot be viewed as zero-sum games or turf wars. Aligned with the experiences I relay in this personal narrative of my
professional experience, the National Academies of Sciences, Engineering, and Medicine has just released an important report entitled “The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity.” This report provides a roadmap to address the need to both transform nursing education and remove practice barriers for advanced practice registered nurses to meet the health needs of the public we serve.

In regard to nurse practitioner educational preparation, Veenema et al conducted a systematic review of the literature that appears in this issue of *Journal of Emergency Nursing (JEN)*. The authors identified a dearth of published evidence on training specifically for practice in the emergency specialty. Of particular interest is the need for collaborative training with emergency medicine preceptors and programs. The authors synthesize evidence that most nurse practitioners have expressed a desire for an emergency medicine fellowship. However, it is unclear from this evidence that these nurse practitioners would be willing to geographically relocate as many physicians do to match with emergency clinical fellowship training opportunities. This important systematic review by Veenema et al advances the scholarship related to the Emergency Nurses Association’s Position Statement entitled “Advanced Practice Registered Nurses in the Emergency Care Setting,” which calls for updated scopes of practice, core competencies, and specialty education.

McCauley et al recently published a transparent and essential debate from the academic dean’s perspective about programs to prepare advanced practice nurses to complete the doctor of nursing practice (DNP) degree. Here, the academic leadership amplifies the message found in Veenema et al about the potential for increasing clinical preparation hours, including debating the placement of residency or fellowship before or after degree conferment to achieve readiness for practice. DNP students invest 500 hours each in a capstone project, which is often directed at a leadership initiative topic rather than at enhanced clinical readiness. Although this leadership focus may have been understandable in the earlier evolution of the degree when most DNP students already had substantial clinical practice and may have already been prepared as nurse practitioners at the master’s degree level, the contemporary preparation needs to be revisited because more students work on continuous education to the doctoral level rather than inserting periods of nursing practice and expertise development at a clinical site between degree program enrollments. Clinical experience and expertise development in the ED setting are unique. Clinical practice in the emergency department requires more preparation to respond to one of the broadest ranges of acuity, age, differential diagnoses, and affected body system than almost any other specialty. Furthermore, as implementation science and quality improvement methods and standards evolve, devoting only 500 hours to a leadership project may prove to be too time-constrained to allow for adequately meaningful methodological designs and measures. Time constraints such as those involved in completing a quality improvement–focused capstone project in 1 academic semester are especially dissonant in the ED setting where there is clear and profound seasonality in the types and volumes of presentations. Furthermore, sustainability over time is a crucial component of implementation science and quality improvement in the clinical setting, and addressing sustainability tends to be well outside the feasible scope of the usual single DNP project time frame. The emergency department in January, susceptible to patient-volume spikes from infectious epidemics such as annual influenza, is a vastly different context from the same emergency department in June wherein the team can often be found in the throes of the traumatic injuries peak of the 100 days of summer. Thus, the time is ripe to revisit, reimage, and reinvent educational pathways for advanced emergency practice, clinical residencies or fellowships, interdisciplinary preceptorship, and capstone project focus and requirements.

At *JEN*, we strongly encourage the submission of case reviews that are relevant to care in the ED setting from authors across all levels of educational preparation and professional development using the CARE (for Case Reports) transparent reporting guidelines. Astute observation of both clinical and laboratory anomalies has long been an essential starting point for far-reaching scientific discoveries and breakthroughs. Case reviews have been dubbed as the “first line” of evidence-based practice in the evidence hierarchy. Although we acknowledge that there is an important hierarchy of evidence to inform the efficacy of practice interventions with a high value placed on the well-designed randomized controlled trial at the top of the pyramid, case reviews serve many important additional purposes in evidence-based nursing practice and clinical reasoning development. As observational studies of a single patient’s clinical course, case reviews may serve as the highest level of possible evidence for extremely rare diseases or unusual emergency presentations where a sample size with adequate statistical power would be impossible to achieve. Meanwhile, an important resource about ongoing research and evidence-based education for patients and clinicians on rare diseases can be found at the Genetic and Rare Diseases Information Center of the National Institutes of Health.

Case reviews serve as an essential problem-based learning tool to develop and refine clinical reasoning processes in education and professional development. Case reviews
are also indispensable for disseminating clinical information about novel diseases or presentations; rare diseases or presentations; treatment side effects (incidentally, beneficial as well as adverse), overdose, or poisoning; complex mechanisms of disease or unusual multimorbid disease interactions; elucidating the clinical reasoning of an expert author; general education or audit; or unique, rare, or unusual presentations of common disease. Given that clinical education continues to evolve with increasing integration of simulation as part of clinical practice preparation and educational program requirements of clinical time, published case reports may also serve as a crucial foundation for educational simulation scenarios to prepare the next generation for “real world,” practice-relevant cases. Last July, Metheny and Krieger disseminated a publication innovation using a systematic review of case reports. Here, they furthered the systematic review methodology, allowing the clinical reader comprehensive insights into a rare toxicity. It would serve as a fruitful leadership dialogue and debate to consider if this type of in-depth systematic review of a case report could serve as a model for academic capstone projects, particularly to advance the clinical reasoning of those in graduate programs seeking qualifications as advanced emergency care practitioners. The development and depth of clinical reasoning required for an exemplary published case report may generate a greater impact for both the student and the published literature, replacing the currently more common option of a single-site, single academic semester quality improvement initiative with no contemporaneous control condition. We welcome the sharing of clinical mastery evident in a well-designed systematic review of case report manuscripts relevant to the emergency clinical setting from students, expert inter disciplinary colleagues, scholars, and clinicians across all levels of practice. Our case for case reviews is strengthened by the expert clinicians’ need to anticipate, discern, and differentiate the metaphorical horse (common), zebra (rare), and zonkey (unusual and unanticipated combinations) of emergency care presentations and diagnoses.

In addition to original research evidence, evidence-based practice columns, and systematic review, we are thrilled to disseminate and integrate several case reports in this issue of JEN. Nicholas et al provide a case example of an older adult presenting with heat-related illness to illustrate the introduction of their innovative practice mnemonic A CLIMATE framework/assessment tool for use in the emergency department. A CLIMATE stands for (1) Act immediately to stabilize life-threatening conditions, (2) Consciously consider climate, (3) Learn from a climate history, (4) Implement a climate-focused assessment, (5) Manage ongoing climate emergency care, (6) Act to integrate a plan addressing physical and mental health climate symptoms, (7) Tell the patient how climate affects their health, and (8) Evaluate, educate, and refer for longer term follow-up. Consistent with the theme of health effects of climate change in this issue, Baez and Suffoletto provide a case report on Lyme disease sequelae in a potentially commonly overlooked differential diagnosis for an ED presentation. Hall and Hall provide a case report of a patient who presented to the emergency department in circulatory shock and hypoxia and required intubation, ventilation, vasopressor support, and emergent dialysis. The case involved critical nursing interventions and astute clinical investigation in determining the differential diagnosis and causal agent. The authors have generously provided an infographic to aid in precepting and educating new emergency nurses about preparing for emergent rapid-sequence intubation. James and London disseminate another case review requiring acute clinical mastery in responding to cardiogenic shock, third-degree heart block, and inability to tolerate transcutaneous pacing. Finally, McNicholas et al review a case of internal abdominal hemorrhage in an adolescent with von Willebrand disease. We hope our reader’s practice, education, policy, and research are enhanced with the clinical wisdom, insights, and fast-paced practice-relevant content in these case reviews. Our case for case reviews rests on the clinical practice relevance, depth of clinical mastery, and impact on clinical reasoning inherent to this form of frontline evidence.

REFERENCES

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