Ensuring That Guidelines Help Reduce Patient Harm

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The ASCO guidelines offer a list of recommendations for the placement and care of central venous catheters (CVC) for adult and pediatric patients with cancer.¹ Key recommendations of what to do and what not to do are offered in a bulleted list for busy clinicians to help them prevent catheter-related infections and thromboses, including using a CVC clinical care bundle. Use of a bundle or checklist to standardize clinical practice is one of the principles for designing safe systems. If used in the context of a clinical setting that is continuously working to improve safety and the quality of care (often called a culture of safety), bundles or checklists will be reliably used and appropriately followed by staff.

The ASCO guidelines are a giant step forward. Too often, guidelines are long and ambiguous, recommend scores of interventions, fail to prioritize the most important ones, and avoid specific recommendations in the face of uncertain evidence, even though practicing clinicians need to treat patients on the basis of that same evidence.² Ambiguity is one of the main reasons why clinicians fail to follow guidelines.³ Guidelines or policies are too often unclear about who is to do what, where, when, and how. The checklist approach recommended by ASCO can remove this ambiguity.

Nonetheless, the goal is not merely to create a checklist, but to reduce preventable patient harm. Thus, checklists alone are insufficient. Checklists can help ensure that clinicians know what to do, but clinicians have to implement the checklist items, be able to comply with them, and monitor infections. Guidelines that are developed with the input of clinicians are more likely to be implemented and effective than those imposed from outside.⁴ Although it is important for organizations like ASCO to summarize best practices, it is equally important for local clinicians to modify how they implement those practices. In our work to reduce bloodstream infections in Michigan,^{5,6} every hospital developed their own checklist. Although 95% of the checklists were the same and contained all of the Centers for Disease Control and Prevention recommendations, the 5% that were different made the checklist effective and used locally. Every hospital thought their checklist was the best and adapted to their culture. Clinicians need to take guidelines and modify how they implement them, based on local barriers and their clinical context.

Clinicians must also be able to easily comply with the guidelines. Quite often compliance is burdensome. When we first implemented our checklist to reduce bloodstream infections, clinicians had to go to eight different places to gather all the

equipment needed to comply with the list. We discovered that caps and gowns were in separate places, and some items were not even stocked, forcing clinicians to decide whether the added time required to find the supplies was worth the benefit of complying with the practice. Too often, the economic decision was to forego the evidence-based practice. The costs of squandering time looking for supplies are real and immediate (other patients will receive less attention); the benefits of complying with the checklist are invisible and in the future.

Clinicians need to work with administrators to identify and remove barriers to comply with a checklist. It must be easy. For example, many hospitals in the Michigan project created carts to store all the equipment needed to comply with the checklist and assigned personnel to keep them stocked. Technology companies also played a role. When the work began in Michigan, only 20% of hospitals had central line kits containing chlorhexidine, a soap that is 50% more effective at reducing infection than Betadine. As a result, clinicians had to take an extra step to use chlorhexidine. After the project began, all Michigan hospitals started stocking central line kits with chlorhexidine. Compliance with chlorhexidine use undoubtedly improved.

In addition to standardizing practice, clinicians can also create independent checks to ensure compliance with the checklist items. To accomplish this, nurses often assist with catheter placement to ensure the checklist items are appropriately completed. This check does require a collaborative safety culture. Unfortunately, nurses often fear feeling humiliated if they question physicians, and physicians fear feeling humiliated if they make a mistake. A safety culture places the patient at the center of concern and acknowledges the human fallibilities of clinical staff. In safe cultures, it is okay to forget a checklist item; it is not okay to put patients at risk of harm. Nurses or other individuals can help ensure patients always receive each checklist item.

The final component of reducing infections is to monitor infection rates and investigate every infection, evaluating where the catheter was placed, whether the checklist was followed, and whether catheter maintenance was a contributing factor. To reduce infections, catheter maintenance should receive the same disciplined attention as catheter insertion. Hospitals that have achieved zero infections for a year or more do all of these.

Still, the most important determinant of whether a hospital dramatically reduces bloodstream infections is whether clinicians believe these infections are their problem and they can solve the problem. If clinicians believe, results will follow. ASCO has done an outstanding job of clarifying what practices

clinicians need to follow to reduce infections. Clinicians must now do their part and ensure that patients actually receive these practices and, most important, ensure that fewer patients are harmed.

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