

Benchmarking critical care processes: Reaching standards of excellence!

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Benchmarking is the process of identifying the highest standards of excellence for products, services, or processes, and then making the improvements necessary to reach those standards, commonly referred to as “best practices”.^[1] Thus, the concept of benchmarking which is basically modeled on the business industry helps an organization to identify the gap between where it actually is, and where it would like to be. This has proven to increase productivity, enhance learning, potentiate growth, and facilitate continuous improvement of standards. The Xerox Company introduced this revolutionary concept in the late 1980s when its market share in copiers reduced sharply from 86% to only 17%.^[1] The company was the first to “benchmark” by first assessing its own internal processes and following it up by studying its competitors, eventually resulting in a dramatic turnaround of its profits.^[2] In the areas of health care too, attempts have been made to benchmark both the processes of health care delivery and patient outcomes, especially in areas such as cardiovascular medicine, transfusion programs, adolescent health, pain management, etc.^[3] These processes have been applied to the intensive care unit (ICU) as well. Gershengorn and colleagues argue that among the key lessons ICU physicians can learn from the business world; benchmarking is a vital component as comparison with peer units or institutions is essential to identifying areas of strength and weakness.^[4]

In this issue of the Indian Journal of Critical Care Medicine, Dr Kapadia and coworkers^[5] have sought to benchmark the rates of tracheal tube displacements within their unit at <1% per patient and at <0.5% per tracheal tube day, and to sustain these targets, over a 10-year period. After measuring their own performance

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over the preceding 7-year period, the above targets were set and specific programs and actions were implemented to maintain the benchmarked target. For the successful benchmarking of any process, it is essential to identify the critical success factors, i.e., those factors on which the success of the benchmarked target will depend on. Kapadia and colleagues have ensured the use of standard procedures for securing endotracheal tubes; encouraged active communication between all health care workers, as well as between patients and their health care providers; developed guidelines to manage pain, anxiety, and delirium; promoted the use of sedation according to target sedation scores; standardized the use of physical restraints, including the preferential use of mittens in agitated patients; and used appropriate humidification techniques, besides ensuring the availability of adequate nursing personnel to take care of intubated patients in the unit. Tying down patients, as rightly pointed out by the authors, is not only inhumane and unjustified most of the time, but can even lead to increased delirium and posttraumatic stress disorder in patients. In fact, some studies have reported that forcefully restraining patients actually increases the risk of unplanned extubations.^[6] By applying concise definitions, clear stratification of airway incidents and reliable surveillance techniques, Kapadia and colleagues^[5] ensure accurate reporting and collection of data. Reporting of all incidents, however insignificant they may be thought to be, and a culture

of non-retribution and openness is essential to the success of such programs. Changes occur when the process has started and needs the constant support of individuals committed to the process and continuously striving to make it better. It is also laudable to note that every incident reported was recorded immediately by a designated person and discussed with the consultant in charge within the following 12-24 hours to ascertain the cause and classify the incident appropriately. Using these principles, the benchmarked rates were sustained over a 10-year period, a remarkable feat in any ICU. While such a process of internal benchmarking helps to determine the internal performance standards of the unit, the identified best internal procedures may also be utilized and adopted in other areas of the hospital, thereby benefiting the larger organization. Later, these targets may be even used as a baseline for external benchmarking, something that the authors should perhaps consider as the next step in this continuing process of growth and improvement.

This study by Kapadia *et al.*^[5] should provide an impetus for clinicians to develop their own continuous quality improvement programs. Often forays into domains of quality control may be perceived as a lot of "hard work". There may also be fears of increased vulnerability to the misuse of data by the media, health insurance companies, and even boards of control, especially when the benchmarked targets are not met. Moreover, unjustified condemnation, when this happens, can lead to staff demotivation and thus backfire in respect to the goal of quality improvement. Staff motivation and a culture of openness and encouragement can offset most of these unfounded fears and the payoffs have been more than substantial for those willing to take up the challenge. Beyond the direct effects of benchmarking, the improved

process and climate that results from the whole process improves the whole organization.^[7]

"If you want to maintain the status quo, then don't benchmark. If you want to remain where you are, secure in the knowledge that you are doing the best that you can, don't benchmark. If reality checks are not your cup of tea, don't benchmark. Benchmarking will open an organization to change, and to humility. Benchmarking provides the stones for building a path toward competitive excellence and long run success." (McNair and Leibfried, 1992).^[8]

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