Routinization contains 2 intrinsic ideas. The first idea is that of routinization as journey. It is a process by which activities are introduced so as to follow regular or unchanging patterns. The journey is complex and challenging. The second idea is that of routinization as destination. It is the institutionalization of activities that improve the quality of health care. The destination empowers nursing staff, especially during triage, to make decisions that help patients and improve the overall health of the community. In this article we describe the routinization journey undertaken and the routinization destination attained by Maricopa Integrated Health System (MIHS) when routine, opt-out human immunodeficiency virus (HIV) screening was introduced into the adult emergency department.

The Joint United Nations Programme on HIV/AIDS estimates that worldwide, in 2014, 36.9 million people were living with HIV/AIDS (PLWHA). Reflecting a 35% reduction in new infections since 2000, about 2 million of PLWHA in 2014 were newly infected. The Centers for Disease Control and Prevention (CDC) estimates that 50,000 of the new infections that occur globally are present in the United States. About 13% of PLWHA in the United States are unaware of their infection. Persons unaware of their HIV infection account for about 33% of new infections. Early diagnosis and treatment for HIV prolong life, reduce ongoing transmissions, and are cost-effective public health interventions.

With a focus on achieving an AIDS-free generation, the staff at MIHS implemented the CDC’s 2006 recommendations for routine, opt-out screening for HIV in the emergency department of the Maricopa Medical Center. For more than 140 years, MIHS has served the residents of Maricopa County, Arizona, as its sole public teaching hospital and health care system, and it provides care for a majority of the county’s underprivileged and uninsured population. After nearly a year of planning that included crucial input from ED nursing staff and a host of other departments, in July 2011 we launched our program, known as TESTAZ (Test, Educate, Support, Treat Arizona). It became apparent early on that nursing involvement and commitment to the project would be essential for the TESTAZ program to achieve success.

First Year Implementation

Prior to the launch of TESTAZ, ED nursing leadership was actively involved and represented in all the planning committees, which included information technology, legal, training, linkage-to-care, laboratory, and criteria committees. With nursing input, HIV-related screening questions were incorporated into the electronic medical
In order to begin, HIV screening begins when the triage nurse reads the following statement: “In accordance with CDC recommendations, all routine blood work includes an HIV test that will be completed at no cost to you.” This statement provides the HIV consent information required by state law. In addition to the spoken verbiage, the triage nurse also provides patients with the HIV informed consent brochure. Once informed consent information is provided, patients are asked if they have previously been tested for HIV and, if so, the triage nurse is prompted to ask additional questions regarding the test results and when the test was conducted. Per MIHS protocol, if patients previously tested HIV-positive or if they tested HIV-negative within the previous 12 months, they are generally excluded from testing. Additional questions help determine patient capacity to consent to testing. Per protocol, patients presenting with an altered mental state or with cognitive impairments or who are in the custody of law enforcement are also excluded.

MIHS uses an opt-out model in which patients are not asked if they want an HIV test; rather, patients are informed they will be tested for HIV if blood for other tests is drawn unless the individual patient declines to be tested. If a patient does not have blood drawn as part of the ED visit but wants to be tested for HIV (eg, the patient reports high-risk behavior or recent HIV exposure), she/he may request that the test be conducted.

Patients are encouraged to ask questions about HIV testing at any time and are told they may retract their decisions. The triage nurse indicates in the EMR whether patients opted out of HIV testing. During the first year, triage nursing involvement with HIV testing was limited to screening patients for eligibility. Triage nurses were limited to only asking the screening questions to decide who could be tested in accordance with MIHS policy and procedures because the responsibility for ordering the HIV test remained with ED residents and physicians.

Improvement Initiatives

During the first year, HIV testing rates were below expectations. Although there was not a formally defined expectation when TESTAZ started, information about testing rates and missed opportunities was provided on a weekly basis. Both nursing and physician leadership believed that the testing rates did not adequately meet the needs of the patients. In an effort to improve testing rates, ED nursing staff implemented several rapid-cycle quality improvement (QI) initiatives.

Initially, the EMR applications for computerized order entry had not fully “gone live.” Staff navigated between 2 computer systems for clinical documentation and laboratory testing, while physicians continued hand-writing orders. To remind physicians to order HIV tests, triage nurses stamped “Order HIV Test” in red on the order sheet. The stamp was meant to be an alert to order an HIV test if other blood tests were ordered. However, testing rates improved only modestly after implementation of the QI initiative.

The second nursing QI initiative involved placing neon-pink labels on the order sheets, in the hope that the brightness of the label would serve as a reminder. The testing rate in 2011 increased from 46% in the third calendar quarter to 61% in the fourth calendar quarter. The testing rate dropped to 56% in the first calendar quarter of 2012. Nursing staff expressed concern because weekly reports displayed increased numbers of missed opportunities (ie, patients had not opted out of HIV testing and had blood drawn for other tests but were not tested for HIV).

Second Year Implementation (and Beyond)

At the end of the first year, nursing staff and leadership, including the MIHS chief nursing officer (CNO), believed that HIV testing rates could improve. Triage screening had been routinized, but testing had not. What should have been a single, seamless process was unnecessarily bifurcated.

The CNO proposed bridging the division by empowering triage nurses to order HIV tests using a protocol based on patient screening responses as previously described. The order, named “HIV: If labs drawn,” is placed by the triage nurse after completing the HIV screening. The order is co-signed by the ED physician caring for the patient. The decision to fully integrate and routinize both the screening and the testing into triage via a standing order, which was approved by nursing leadership, the ED medical director, and the chief medical officer, achieved immediate, significant, and permanent improvements in testing rates.

Currently the nurse caring for the patient draws blood, including blood for an HIV test, provided the test was ordered in triage and co-signed by the physician. The number of missed opportunities decreased drastically within the first week of this expanded, nurse-driven initiative. Weekly reports displaying dramatic improvements in testing rates served as morale boosters for the ED nurses and reinforced the initiative to improve testing rates.
Results

As previously reported, TESTAZ produced impressive results.9,11,12 During the first year, ED nurses routinized HIV screening questions within the broader triage safety screening. In the second year, routinized ordering of HIV tests was implemented into the triage process. One week after the implementation of nurse-driven protocols, the testing rate rose from 67% to 85.3%. The first year testing rate of 67.2% increased to 96.9% in year 2. The testing rate has since leveled out at about 98% on a regular basis. Notably, on 2 separate weeks, the HIV testing rate reached 100%. Routinization has empowered nursing staff, especially during triage, to make decisions that help patients and the community.

Conclusion

The primary goal of implementing nurse-driven initiatives is to improve patient outcomes as measured by a resultant change in practice.13 ED nurses have embraced the responsibility for both screening and ordering HIV tests. The sustained increase in HIV testing rates demonstrates a permanent change in practice. Nurses were involved with planning, implementing, and improving TESTAZ from the beginning. Support provided by nurse champions, encouraging data in weekly reports, and ongoing education have empowered triage nurse commitment to our overall success.

TESTAZ shifted the paradigm of our adult emergency department from traditional acute patient care to one whose scope includes community service and preventive care. When we consider the success of TESTAZ, we find that routinization is both journey and destination for nursing empowerment. Nurse empowerment increased testing rates, improved patient outcomes, and helps address health disparities in the community.

REFERENCES


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