Bahrain Medical Bulletin, Vol. 28, No. 4, December 2006

Family Physician Corner

Nurse Triage Initiative - Improving the Performance of Primary Care Services

Abeer Al-Saweer, MD* Sameera Al-Sairafi, MD**

The target of any health institute is to provide the best service equally to all attendees with the best affordable quality. The Ministry of Health (MOH) in Bahrain is no exception to such a rule. Lately, the MOH has launched various projects to improve the quality of services provided in the primary care health centers. The aim of this paper is to discuss the nurse triage initiative which was launched recently, its procedure, impacts, outcomes and barriers.

Nurse Triage in Medical History

Triage is derived from the French *trier*, meaning "to sort." Triage developed to meet the need to prioritize the medical care of injured soldiers in war settings. The concept of giving priority in medical services to those who urgently need it was practiced in France in the early 1800s¹.

During World War I, the reduction in fatalities in some battles was attributed to successful triage. Triage is one of the first applications of medical care after first aid¹.

In the early 1900s triage took place mainly in emergency departments (ED) but in a sporadic fashion. It was not widely adopted in EDs until the latter half of the century, when national standardization of the triage in ED was practiced¹.

Why patient triage in primary care?

Triage is a brief clinical assessment that determines the time and sequence in which patients should be seen in the ED or, if in the field, the speed of transport and choice of hospital destination².

The role of primary care in providing other services is viewed by decision makers as extremely economic and time saving. Primary care has a pivotal role in many other health disciplines. This has created additional tasks for the staff in primary care³.

The pressure on physicians and staff to meet the new guidelines for managed care without compromising patient services is overwhelming. These new demands create frustration and confusion. Staff feels overloaded and unable to concentrate and patients can feel this confusion as well³.

** Consultant Family Physician Directorate of Health Centers Ministry of Health Kingdom of Bahrain

^{*} Consultant Family Physician-Diabetologist

Implementing an effective triage system will improve communication, confidence and service. Triage system helps to reduce consultation visits for minor complaints while ensuring there is access to the appropriate level of care when necessary³. It ensures the availability of proper care for needy patients all working day long and may reduce the waiting time for the neediest patients. It allows for increasing time for preventive services like periodic women, adult and child screening. It also helps in extending the consultation time for patients requiring priority treatment.

Triaging helps in picking hidden emergencies and decreasing the waiting time for some while receiving the proper care⁴.

Clinical triage is particularly useful in primary medicine⁴. The nurse triage system in primary care centers in Bahrain is a new initiative with old roots; after the physicians' appointments were fully booked, the nurses used to screen the walk-in patients and refer those in need for urgent medical consultations. The idea of involving trained experienced nurses in the patient management has been present for long time⁴. The launching of different projects to improve quality of service has brought this idea to life. The expertise, competency and safety of nurses working alongside family physicians are not doubted, rather definitely assured through well-designed studies⁴.

Nurse triage system description in Bahrain

The initiative started by a diagnostic phase in which certain parameters and indicators were measured prior to the launching of the project and were re-assessed afterwards.

The target population of the nurse triage initiative was all walk-in patients attending Sheikh Sabah health centre in the morning period. Pre booked patients were excluded.

A special form was designed for the triaged walk-in patients. It included brief medical history and relevant clinical examination. It also included stratification of the urgency of patients' condition and the end pathway for the consultation.

Guidelines for the triaging nurse were designed to meet the need of patients in a primary care setting.

A drug list of over the counter (OTC) medications was available for nurses' use and included within the guidelines.

Training of the concerned staff and informing the media and the public was running parallel to the diagnostic phase.

After comprehensive and intensive meetings and training, the initiative was gradually launched. At the beginning not all walk-in patients were triaged; the target was to triage all walk-in patients by the end of one month from starting the project. Triage nurses were constantly supervised.

Monitoring parameters

Some of the monitoring parameters of the nurse triage system are:

Availability of appointments throughout the day, percentage of triaged patients handled by the nurse and percentage handled by the physician, percentage of prebooked appointments, availability of preventive services appointments, average waiting time, patient and staff satisfaction and consultation time.

Preliminary Results

After few months of implementing the system, encouraging results have prompted further perusal of the system and generalizing it to other health centers (East Riffa and Hamad Kanoo).

Triage nurses could effectively and competently handle 25% of all walk-in patients allowing chance for increasing utilization of existing consultation time.

There was definite increase in the availability of appointments throughout the day and was allocated for more needy and chronic patients.

The availability of preventive services appointments have increased by 25% with the implementation of the triage system.

Waiting time for the patients had noticeably decreased. This was reflected in increased patient satisfaction and proper utilization of the primary care services.

Barriers to nurse-triage system

Some are debating this system and arguing its validity based on the following obstacles:

- 1. **Capabilities of the nurses**: the argument about the nurse's competency and capability have been disputed considering the effective training they received in college years and the experience they gained while working alongside family physicians. Field training is accentuated to the assigned nurses in preparation for this task. The literature reveals no evidence of poor nurse practice in the triage setting, rather randomized controlled trials (RCTs) support the contrary⁵. The Ministry of Health in collaboration with College of Health Sciences is developing a program for training and certifying triage nurses.
- 2. **Patient's preference and satisfaction**: there will always be arguments about patient's preference to be managed by a qualified doctor rather than a nurse⁶. The fact is that the triage nurse does not replace the doctor's job; rather the advantage of re-assigning patients to different services at the proper time and manner should be stressed. No conflicts in the job description should be anticipated since both jobs are integrated and complementary to each others. New roles for the nurses are emerging to fill the shortage in health screening, chronic disease management and raised public expectations⁶.

Patients should be educated about the role of each health professional in the new system. Failure to achieve this goal will create frustration and mistrust.

- 3. Limitations in the system: it is said that the existing system is not yet flexible enough to accommodate the changes imposed by the triage system. Efforts were made to overcome such limitations in the system like communicating with the pharmacy to allow dispensing the OTCs with nurse's signature and the laboratory to allow for simple blood and urine test. Triage nurses were given the authority to issue sick leaves but these should be countersigned by a physician⁷.
- 4. Legality of the system: The main concern of service providers is the legality of the system⁷. It was questioned whether the project involves the practice of medicine in Bahrain by nurses who are not licensed to practice medicine. Developing evidence-based guidelines will provide some legal protection for both the nurses and the doctors⁷. This is the major task underway to legalize the project. Laws have been proposed and discussed to support the health provider position.

Nurse triage in primary care is a very ambitious project to improve the performance of health care in the primary care setting. The preliminary results are encouraging and promising. The intention is to generalize this experiment to all health centers in Bahrain.

REFERENCES

- 1. Koperski M, Rogers S, Drennan V. Nurse practitioners in general practice—an inevitable progression? Br J Gen Pract 1997;47: 696-7.
- 2. Richards D, Tawfik J. Introducing nurse telephone triage into primary care. Priory. Nurs Stand. 2000; 15 (10):42-5.
- 3. Subash F, Dunn F, McNicholl B, et al. Team triage improves emergency department efficiency. Emerg Med J 2004; 21(5): 542-4.
- 4. Murray M. "Improving Timely Access to Primary Care: Case Studies of the Advance Access Model" *JAMA* 2003; 289: 1042–6.
- 5. Kinnersley P, Anderson E, Parry K, et al. Who should see the extras? A randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care: process and outcomes. BMJ 2000; 320: 1043-8.
- 6. Venning P, Durie A, Roland M, et al. Randomised controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care. BMJ 2000; 320: 1048-3.
- 7. Shum CM, Humphreys A, Wheeler D, et al. Practice nurse-led management of patients with minor medical conditions: a randomized controlled trial. BMJ 2000; 320: 1038-3.