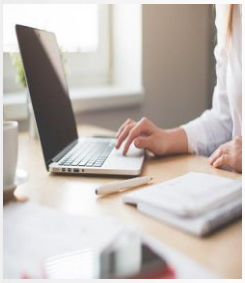
Clinical Update

For Telephone Triage Nurses



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Call Center Metrics for Meeting the Quadruple Aims

The Quadruple Aim is a framework for optimizing the performance of health care systems. Here are the Four Aims:
1st Aim: Improve Health Quality and Safety
2nd Aim: Reduce Costs
3rd Aim: Improve Patient Satisfaction/Experience
4th Aim: Improve Provider Satisfaction/Experience

Where Did the Quadruple Aim Come From?
The Triple Aim was initially proposed by the Institute for Healthcare Improvement (www.ihi.org/triple-aim) in 2008. The 4th Aim was added in 2014 (Bodenheimer). The Aims have been widely adopted by health care organizations to measure and document improvements in population health. While medical call centers are only a part of health care systems, they serve as the gateway or entry point to various health care resources. This article reviews the many ways after-hours call centers meet the Quadruple Aim. It may be beneficial for your call center to document and share some of these metrics with your hospital administration and physician subscribers.
Most of these interventions and metrics come from our pediatric call center at Children's Hospital Colorado. They only require access to disposition reports and call documentation notes. A few metrics marked by * are more advanced QI projects and require outcome data from EHRs. Also keep in mind that pediatric and adult benchmarks are different.

1st Aim: Improve Health Quality

Use triage and advice guidelines that meet the standard of care (evidence-based, reviewed, referenced, and tested on millions of calls).

Metric: STCC guidelines meet that standard and are updated annually.

Train nurses to provide quality triage and advice. Train them to adhere to the guidelines or to justify any over-ride. Train them to select the most appropriate guideline for the call and the highest acuity triage question that applies.

Metric: Using call reviews, meet 2 benchmarks: correct guideline was used 95% or greater; correct disposition was reached 95% or greater.

Reduce variance among triage nurses.

Metric: From individual nurse call reviews, compare performance to above benchmarks. Nurses who don't meet the benchmarks need coaching.

1st Aim: Improve Safety Using Risk Management and Call Reviews

Main Goal: Zero ED Under-Referrals. They are defined as not referring a patient with a serious illness to the ED Now. Result: Delayed diagnosis and delayed treatment. Potential risk for increased medical complications and adverse outcomes.

New staff orientation program. Include teaching on not missing the serious diseases that cause most pediatric malpractice claims. They are meningitis, appendicitis, respiratory distress (seen with pneumonia, bronchiolitis, etc.) and baby emergencies. (see McAbee 2008).

Metric: Document time devoted to teaching recognition of serious symptoms.

Continuing nurse education at staff meetings. Include reviews of serious diseases and how they present to triage nurses.

Metric: Document how often you provide CNE on serious calls.

Request feedback from your ED staff about any delayed referrals.

Metric: Document complaints and your response. Change policy, protocol or provide nurse education as needed.

Quality improvement project with ED outcome data. * The objective is to detect hidden ED under-referral problems that no one complains about. These are defined as patients who were admitted within 24 hours after a call, not referred to the ED, and had some serious symptoms at the time of the call that should have triggered an ED referral. Select high risk symptoms (such as the Abdominal Pain guideline) for call reviews. Focus on call reports of patients who received a non-ED disposition.

Metric: Document any proven ED under-referrals. Document your action plan for these calls: changes in policy, protocol or nurse training. Document the number of these calls as a percentage of total calls appropriately referred to the ED and admitted.

Use the Risk Management Checklist to assess the safety of your call center system. (see December 2012 issue of Clinical Update by Dr. Schmitt or the STCC User Guide). The checklist reviews 22 errors in call center performance that can lead to adverse outcomes.

Metric: The nurse manager uses this checklist or a modified version to perform an annual quality check of the call center.

2nd Aim: Reduce Costs and ED Over-Referrals

Main Goal: Reduce ED Over-Referrals. Defined as referring a patient to ED after-hours who could safely be seen tomorrow in the office or even safely treated at home. Since there has to be some ED over-referrals to achieve zero ED under-referrals, our benchmark for ED over-referrals has been 10% or less of the patients triaged to the ED. The criteria for an appropriate ED referral are found in a study by Kempe 2000.

New staff orientation program. Include teaching about normal symptoms and safe symptoms that needlessly worry parents (such as fever phobia). Teach the power of education and reassurance for common viral symptoms.

Metric: Document time devoted to teaching about managing the common viral infections that every child gets multiple times.

References

Bodenheimer T, et al. From triple to quadruple aim: Care of the patient requires care of the provider. Ann Fam Med; 2014;12: 573-576.

Bunik M, et al. Pediatric telephone call centers: how do they affect health care use and costs? *Pediatrics*. 2007 Feb;119(2):e305-13.

Kempe A, et al. Appropriateness of urgent referrals by nurses at a hospital-based pediatric call center. *Arch Pediatr Adolesc Med.* 2000;154:355-360.

Kempe A, et al. Reducing after-hours referrals by an after-hours call center with second-level physician triage. *Pediatrics*. 2000;106(1 Pt 2):226-230.

McAbee GN, et al. Pediatric malpractice claims: rank-ordered Pediatrics 2008; 122: e1282-1286.

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Continuing nurse education at staff meetings. Select one symptom per quarter. Provide presentations and/or self-study reading materials on effectively managing that symptom (called "symptom immersion"). Encourage every triage nurse to share advice tips about how they successfully managed that symptom.

Metric: Document baseline ED referral rate for that specific symptom guideline. Recheck it in 3 months after the educational program month. Document the new ED referral rate and the percentage change, hopefully decreased.

Request feedback from your ED staff about any frequent types of over-referrals.

Metric: Document the learning opportunity and your response.

Establish benchmarks for pediatric ED referral rates. For pediatric after hours call centers, the average rate is 20-25%. Adult patient ED referral rates are usually 10% higher. Note: ED Referral Rate includes 911, Go to ED Now and See Within 4 Hours dispositions.

Metric: Use disposition reports for individual triage nurses. For any nurse with a pediatric ED referral rate over 35%, do 20 or more call reviews. Document a performance plan and track improvement. Caution: ED referral rates are normally higher on 11-7 night-shifts.

Quality improvement project with ED Outcome Data. * Select a guideline with a high call volume, such as Cough. Review 100 call reports that have an ED Now or Within 4 Hours disposition. Mainly check for accuracy of dispositions, based on presenting symptoms in the ED. Proof of appropriate referrals: nurse's documentation and reason for referral were confirmed in the ED (e.g., respiratory distress was present).

Metric: ED over-referral benchmark is less than 10% of all ED referred calls. Document rate for your entire staff and individual rates for each triage nurse. Document performance plan for nurses with ED over-referral rates more than 20%.

Encourage physician second level triage (SLPT) from your subscribing physicians. Definition: Go to ED Now and See PCP within 4 Hours disposition calls are put back to on-call PCP for re-triage. Requires practice approval. Can reduce the ED referral rate by 50%. See the 2000 study by Kempe. This is the most powerful strategy for reducing ED over-referrals.

Metric: Document the percent of your practices that provide SLPT.

Perform a caller prior intent study. * At the start of the call, ask the caller: "What would you have done, if you could not have called a doctor or nurse tonight?" List that answer as the caller's disposition.

Metric: Compare the ED Referral Rate by parents to that of nurse triage. The difference is the parent ED over-referral rate that the call center prevented. Additional calculations can determine your cost savings (ROI). See 2007 study by Bunik.

Attempt to reduce average call length. It determines the cost of that call. Reduce longer calls by improving nurse efficiency. See "Efficiency Tips for Phone Triage" by Kelli Massaro RN, Clinical Update, December 2016.

Metric: Compare individual nurse call times to call center average call times. Nurses with long call times outside the normal range need coaching. Document intervention and results.

Off-load more nurse calls by promoting use of the pediatric symptom checker.

It helps parents provide self-triage and self-care for their child's illnesses. It's available on many websites and mobile apps. A full age range symptom checker including Dr. David Thompson's adult guides is also available.

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3rd Aim: Improve Caller Satisfaction and Experience

Parents love nurse call centers. Here are some of the features they value:

- ✓ Access and convenience: 24/7 availability
- ✓ Saves time: driving time, bus time, ED wait time
- ✓ Saves money: free service with no co-pay.
- ✓ Science-based advice counteracts media hysteria during infectious outbreaks.
- ✓ And most of all, callers appreciate your warm caring voice, your logical questions, your listening skills, and your detailed home care advice.

  Metric: Caller Satisfaction Surveys about your call center service.

Provide a community service line to improve access to nurse triage and advice. It's highly valued by parents who don't have a medical home or just need a second opinion about an issue they are deeply worried about. It prevents ED walk-ins.

Metric: Document number of these calls per year as evidence of value to your community.

Send out care advice handouts at end of call. These help parents with memory limitations. Fact: the pediatric guidelines are matched to over 250 electronic handouts (called After Care Instructions). Can be text messaged or emailed at end of the call.

Metric: Document what percent of your home care calls include sending a handout.

Try to reduce response times. Have some triage nurses on backup for surges.

Metric: Track response time for call backs and try to improve. Track wait time for direct calls and try to improve.

Address any caller complaints promptly. First, review audio of the call. Get back to the parent about your findings and what action you will take to address their concerns.

Metric: Document these calls and your response.

4th Aim: Improve Community Physician Satisfaction and Experience

Nurse call centers allow the PCP to delegate after-hours calls to a trusted resource of specially trained nurses using standard of care protocols.

After-hours call centers have improved the PCP's quality of life. After a long day seeing patients in the office, they can be assured of some protected family time and uninterrupted sleep. Call centers reduce physician burnout and often expand their practice lifespan. In addition, call centers support the medical home. When safe to do so, sick patients are referred to the medical home when the office is open. When after-hours urgent care is required, the practice's site preference is encouraged.

Metric: Physician satisfaction surveys of call center performance. Always ask what they like best and least. For the latter, document what you changed to address that deficit.

4th Aim: Improve Triage Nurse Satisfaction and Experience

Let's not forget you. Your work is meaningful and makes a difference. You help 5 or 6 families every hour. You remove needless worries. You educate and empower parents to provide more evidence-based care for their children. You help them make it through the night.

In addition, you learn something new every day from your calls, the guidelines and your colleagues. You are functioning at the top of your license. You are on a lifelong learning pathway. And, best of all, sometimes you get to do all this from home.

Metric: Triage nurse satisfaction surveys about their work. Note to call center managers: happy employees are 10% more productive.

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