Applying Lean Six Sigma Principles to Reduce Denials

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Under a fee-for-service payment model, healthcare providers receive payments from public payers (such as Medicare and Medicaid) and commercial payers for patient services such as physician visits, hospital stays, procedures, and tests. In an ideal world, providers would receive accurate, complete, and timely reimbursement for their services. Unfortunately, the reality is far from ideal, where payment denials and delays are a common occurrence. According to one study, out of $3 trillion in total claims submitted by healthcare organizations, an estimated 9% of charges ($262 billion), were initially denied.[1] The good news is that 90% of all denials are preventable, and two-thirds of those preventable denials can be successfully appealed.[2]

Physician advisors are uniquely positioned to help hospitals reduce denials. They already decrease denials on a case-by-case level through concurrent reviews, peer-to-peer discussions, and written appeals, and can play a significant role in hospital-wide denial prevention efforts. The latter requires an understanding of the revenue cycle management and performance improvement principles.

Over the past 10 years, as a performance improvement consultant and physician advisor, I've used Lean Six Sigma principles to help hospitals and physician practices improve patient revenue, clinical quality, cost, and operational efficiency. I've found that the key to successful and sustainable improvements is using a disciplined approach, which I will share with you in this article. But first, let's review revenue cycle management and denials types and causes.

Understanding Revenue Cycle Management and Denials

For physician advisors to impact change at a hospital-wide level, it first takes understanding the landscape and terms at play. According to Healthcare Financial Management Association (HFMA), revenue cycle management is a complex process that includes "all administrative and clinical functions that contribute to the capture, management, and collection of patient service revenue". These functions could be broken down into four main categories:

- Claims preparation (e.g., pre-authorization, eligibility and benefit verifications, patient registration)
- Claims submission (e.g., charge capture, medical coding based on medical record documentation, claims transmission)
- Claims management (e.g., payment posting, denial management, patient collections)
- Reporting/Analysis

Claim denial is "the refusal of an insurance company or carrier to honor a request by an individual (or his or her provider) to pay for health care services obtained from a health care professional".[3] Denials are classified as hard versus soft, and clinical versus technical or administrative.

- *Hard denials* will result in lost revenue unless successfully appealed (e.g., lack of pre-authorization or medical necessity).
- *Soft denials* do not require appeal and may get paid if a provider corrects the claim or submits additional information (e.g., missing or inaccurate patient information, missing medical records).

- *Clinical denials* are based on medical necessity, length of stay, or level of care determination. They can be concurrent and retrospective and typically start as soft denials.
- *Technical or administrative denials* are based on reasons other than clinical (e.g., failure to pre-authorize care, lack of benefits).

The initial denial rate is tracked at the claim level (*number of claims denied/number of claims submitted*) and at the dollar level (*total dollar amount of claims denied/total dollar amount of claims submitted*).

These are the top reasons for denial at the claim level: [1]

- Registration and eligibility issues - 23.9% of claims
- Missing or invalid claim data - 14.6%
- Authorization and pre-certification issues - 12.4%
- Missing medical documentation - 10.8%
- Service not covered - 10.1%
- Lack of medical necessity - 5.5%

With this understanding, you're ready to begin reducing denials using Lean Six Sigma principles.

Using Lean Sigma Principles to Reduce Denials

Lean Six Sigma is a problem-solving philosophy that brings people, data, and tools together, and follows five phases designed to measurably improve performance.

Laying the Foundations: Assembling a Team

The success of any performance improvement project hinges on the people involved. So first, you will need to carefully assemble a team.

Start with identifying an executive sponsor and a project leader. *An executive sponsor* is a senior executive (for example, Chief Financial Officer or Chief Operative Officer) whose role is to help engage stakeholders, secure resources, and remove barriers. A *project leader* is one person accountable for planning, executing, and closing a project.

When assembling the rest of the team, include representatives from all major stakeholder groups (e.g., patient registration, case management/utilization review, payer contracting, physicians, medical coding, billing, IT, finance, and accounting), but keep the team small enough to be effective. Look for people with the relevant knowledge and experience, who are respected by their peers and can influence opinions. With the right team, you're ready to move forward with the following five phases.

1. DIAGNOSE PROBLEM
2. DEVELOP SOLUTION
3. IMPLEMENT SOLUTION
4. EVALUATE IMPACT
5. SUSTAIN IMPROVEMENT

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Phase 1: Diagnose Problem

The most common, and ultimately mortal, performance improvement mistake is jumping to a solution before understanding the magnitude of the problem and its root causes. Start with reviewing your hospital data to answer the following questions:

- What is the initial denial rate, overall, and by payers?
- What is the rate of appeals (best practice is to appeal 85 - 88% denials)[4] and overturn rate, overall and by payers?
- What are the most common and costly denials by the denial reason, CPT code/DRG, service line, and physician?

The initial data analysis may not give you all the answers, but it will point you towards areas for an additional investigation that would include stakeholders' interviews and a review of current processes.

Physician advisors are invaluable in identifying and validating root causes for clinical denials and generating potential solutions, as they bring to the table:

- Clinical expertise
- Understanding of clinical workflows
- Knowledge of the most current public and commercial payers' regulations
- Insight into hospital-specific clinical documentation opportunities (e.g., by diagnosis, procedure, service line, and provider)
- Understanding of payers' documentation requirements and reasons for clinical denial through peer-to-peer discussions

By ensuring you correctly diagnose the problem, you will be able to develop the right solution.

Phase 2: Develop Solution

As we often find in healthcare, complex problems, like denials, will have more than one underlying cause and may require more than one solution to see a measurable impact. First, your team needs to *prioritize solutions* based on their potential impact and ease of implementation.

Once you choose the solution(s), *clearly outline the design*. For example, if you are making changes to an existing process or implementing a new one, map it out step by step, and clearly define who is accountable for completing each step. If you are implementing a new technology solution, be crystal clear regarding WHO, WHEN, and HOW it would be used.

The next step is to *set SMART goals* (**S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**ime-bound). Ultimately, your solution's success will be measured against its goals, so use your best thinking to define them. In addition, SMART goals will help to engage front-line staff and manage the expectations of your executive team.

Here are two examples of project goals:

1. Not SMART: Reduce denials at Hospital A.
2. SMART: Reduce initial denial rate (*total dollar amount of claims denied/total dollar amount of claims submitted*) at Hospital A from 12% to 9% percent within six months of project go-live.

The final step is to *estimate and secure resources:*

- PEOPLE (specific person/role/department with estimated total hours per project or hours per week)
- ASSETS (such as hardware or software license)
- BUDGET (forecasted itemized cost and available funding)

Once you define your goals and secure the necessary resources, you're ready to implement a solution.

Phase 3: Implement Solution

Remember, whether you are improving an existing process or piloting a new process or product, you are asking people to change. You may develop the best solution, but it will not be successful unless it is embraced by others. To engage your front-line staff, start with clearly communicating WHY the change is urgently needed for the benefit of the hospital and patients, and HOW you plan to accomplish this.

Share how denials impact your hospital's bottom line and impair its ability to invest in people, infrastructure, and technology to enable good patient care. Give examples of how denials impact patients' ability to afford medical care. For example, if an inpatient stay is deemed "not medically necessary" by the payer, patients may be responsible for a higher percentage of their medical bills, which could create an unbearable financial strain. A recent study revealed that medical bills are a leading reason for personal bankruptcies, with an estimated 530,000 families turning to bankruptcy each year because of medical issues and bills.[5]

As your implementation moves forward, it is easy to relax if you are seeing early positive results, or to get discouraged if initial results are below your expectations. *Do not let up or give up* – continue to evaluate impact, refine your solution to get back on track and *communicate, communicate, communicate*. No project ever failed from (over)communication, but the opposite is true. Use all available channels, such as in-person meetings, intranet, emails, and printed materials to share success stories, results and lessons learned to keep momentum.

Phase 4. Evaluate Impact

Another common performance improvement mistake is failure to evaluate impact. I often see that performance improvement efforts are either quickly abandoned if they fail to produce immediate results, or kept going indefinitely. You need to allow enough time to see the full impact – at least three to six months - depending on the complexity of the problem and solution. In the end, you need to evaluate outcomes against your SMART goals and decide if you want to *continue* as is (see Phase 5 – Sustain Improvement), *make changes,* or *stop* and go back to the drawing board.

Whether your solution achieves the expected outcomes or not, you will learn valuable lessons along the way. Openly share both positive and negative results as lessons learned with as many people as possible. This knowledge exchange will augment organizational performance improvement capabilities and inspire more improvement efforts.

Phase 5. Sustain Improvement

Once you demonstrate desired impact, include selected metrics (for example, initial denial rate) in your monthly performance dashboard, regularly review and discuss performance to maintain engagement, and if needed, make improvements to get back on track.

Successful denial reduction requires a disciplined, data-driven, and team-based approach. By applying Lean Six Sigma principles you will ensure successful and lasting improvements.

References

[1] LaPointe, J., "$262B of Total Hospital Charges in 2016 Initially Claim Denials," RevCycle Intelligence, June 26, 2017.
[2] Gooch, K., Gooch, K., "4 Ways Healthcare Organizations Can Reduce Claim Denials," *Becker's Hospital Review*, July 26, 2016; Haines, M., "An Ounce of Prevention Pays Off: 90% of Denials are Preventable," Advisory Board, Dec. 11, 2014.
[3] Source: https://www.healthinsurance.org/glossary/denial-of-claim/
[4] Source: https://www.hfma.org/topics/hfm/2018/september/61778.html
[5] Source: https://www.cnbc.com/2019/02/11/this-is-the-real-reason-most-americans-file-for-bankruptcy.html