Introduction
As payors continue to explore new ways to ratchet down reimbursement rates, running a radiology practice requires more sophisticated management expertise than ever before.

In easier times, the success of a group could be measured by its ongoing monthly deposits and the satisfaction of its patients and physicians. But today, radiologists that look only at the bottom line will find themselves seeing ever-decreasing revenue. Success hinges on managing a wide range of process and performance indicators that are vital to a practice’s long-term survival.

Benchmarking is a proven management technique that allows groups to understand exactly how they are performing so that problems can be identified and corrected quickly. Equally important, benchmarking facilitates goal-setting that is essential to the financial health for any radiology practice.

Benchmarking Defined
Benchmarking is more than just a process of comparing key performance indicators internally within the practice. Most practices conduct simple internal benchmarking, such as comparing the annual revenue per radiologist within the practice to identify the top performer and to see how other radiologists compare to that individual.

While such information may be useful, external benchmarking – comparing the performance of an organization against its peers – provides a much better picture of how well the practice is doing. Indeed, benchmarking is a standard and ever evolving activity for many of the world’s biggest companies. Xerox famously used benchmarking to understand why it lost market dominance to Japanese competitors in the 1970s and to regain its global leadership position in the industry.

Many external factors can influence the financial health of a radiology practice such as a change in payor mix and/or a practice’s modalities, rising salary and benefit costs and new audit threats. Historically few radiology practices have used external benchmarking to systematically analyze the impact these factors can have on a group’s financial performance. These new challenges to radiology practices require the use of innovative management techniques and tools.
Top performing radiology groups use external benchmarking as a key component of their strategic planning. By comparing a group’s processes and performance against its peers, radiologists can understand strengths, weaknesses and opportunities for improvement. Benchmarking allows the practice to see how it compares to “best-in-class” performers and learn from their success.

Most importantly, benchmarking provides the results necessary to set meaningful goals — such as increased productivity, decreased days in A/R resulting in optimal cash flow for the group. Monitoring this process is instrumental in achieving these goals. (see Figure 1).

Figure 1. Used effectively, reporting tools not only measure key performance indicators but also document and project performance against practice-defined benchmarks.

Process and Performance Benchmarking Are Equally Important

The most effective use of benchmarking involves two separate activities:

- **Performance benchmarking** compares a practice’s operating performance internally over time and externally against other similar practices. An example of internal benchmarking would be comparing a practice’s “total percentage of accounts receivable greater than 120 days” at year-end 2009 versus year-end 2008. External benchmarking, meanwhile, could include comparing the practice’s performance on that measure with that of other practices.

- **Process benchmarking** compares a group’s work protocols – for example, the frequency with which patient bills are mailed – against
practices that have a very low percentage of accounts receivable greater than 120 days.

Together, these activities allow radiologists to understand whether their organization’s performance is improving from month to month and annually as it compares to best-in-class performers. This analysis allows the group to know, for example, that some similar groups are able to limit their accounts receivable greater than 120 days to 10%, making that a reasonable goal to work toward.

To successfully manage a practice, radiologists need to benchmark performance metrics in several areas:

- Billing, adjustments, collections, denials and bad debt
- Staffing and expenses (for practices billing in-house)
- Coding accuracy
- Productivity (RVUs)
- Profitability (revenue/procedure)

Within each area, a number of measurements can be used to assess practice performance. For example, to monitor collections, typical benchmarks include “percentage of procedures denied,” “total days in accounts receivable” and “net collections.” Common productivity measures include “average revenue (collections) per procedure” (see Figure 2) and “relative value units (RVU) per physician.”

![Figure 2](image)

**Figure 2.** Trending indicators are key to driving action plans to improve performance.

In every category, a single measure is insufficient to accurately present the group’s performance. Combining several measures (see Figure 3) provides a fuller understanding of whether the practice is thriving and identifies specific indicators that need improvement and monitoring.
Figure 3. Trending indicators help determine if a practice is operating at peak performance levels.

Consider the example of a group that, compared to its peers, has extremely high radiologist hours worked per year but is barely profitable. If the group also benchmarks “total gross collections per FTE physician,” it can determine that its radiologists are being reimbursed less than their peers, which may indicate: (1) a need to review negotiated managed care contracts; (2) a failure to properly code, and/or; (3) failures in the billing and accounts receivable management process.

Appropriate Data Sources Are Key to Benchmarking Success

External benchmarking is effective only if a practice’s performance measures are compared to similar groups. For example, comparing “average revenue per procedure” for a 10-member radiology office-based practice doing mainly mammograms to a 23-member group with a high percentage of interventional and nuclear procedures wouldn’t be meaningful.

Similarly, a practice’s payor mix must be considered. A practice with a high percentage of self-pay patients will likely have lower net collections than one that primarily serves Medicare and privately insured patients.

Thus, it is critical that a valid source of benchmarking data be used to conduct the analysis. Possible sources of such data include subspecialty societies, practice management associations and trade publications.
Self-Assessment Is a First Step

Benchmarking starts with a determination of the factors critical to a practice’s long-term success. Profitability is an obvious success factor for any business.

The second step is to identify indicators, or metrics, that measure the success factor. While “annual profit” is an indicator, focusing on that alone does not provide enough information to accurately analyze a practice’s financial well-being. Several indicators that contribute to profitability should be benchmarked both internally and externally.

For instance, if 15% of insurance claims are being denied, profitability will certainly be affected. Furthermore, such a high denial rate would suggest that the practice needs to improve documentation and coding as well as modify its procedures for filing and claims follow up.

In this situation, a group might identify “percentage of claims denied” as one indicator appropriate for internal month to month and annual benchmarking, external benchmarking and process benchmarking to learn how best-performing radiologists achieve a 4% denial rate.

After the list of metrics has been established, radiologists must identify the appropriate sources of benchmarking data, measure their organization’s performance on the indicators and compare its performance to the benchmark.

The final steps are to analyze the findings of the benchmarking study and determine what corrective actions need to be taken to improve performance before the next benchmarking comparison.

Any indicators in which the practice is performing poorly relative to its peers may be appropriate for process improvements. Moreover, if an indicator falls in the average range for the peer group, radiologists may choose to strive for “best-in-class” status. Reaching this status requires goal-setting and enhancements to the current process so that the objective can be achieved.

Benchmarking Effort Prepares Practice for Success

Benchmarking is a powerful management technique for understanding a practice and positioning it for long-term financial success.

However, benchmarking must be undertaken in a systematic, thoughtful manner. Comparison for the sake of comparison is useless; meaningful comparison that paves the way for improving financial performance is a valuable activity that is worth the time and effort it requires.
Glossary of Key Performance Indicators

EFFICIENCY METRICS

**Days in Accounts Receivable (DAR)**: Total Outstanding Accounts Receivable Balance divided by the Average Daily Charge. The Average Daily Charge is calculated by dividing the last three months Gross Charges by 91 days.

**Percent of A/R over 120 Days (A/R over 120)**: Total Outstanding Accounts Receivable Balance over 120 days as a percentage of the Total Outstanding Accounts Receivable. It is important to understand the billing system set up. Some systems re-age accounts receivable, which would effectively understate the accounts receivable over 120 days old and make this metric less effective when compared across other practices.

EFFECTIVENESS METRICS

**Net Collection Rate (NCR)**: Net Collections (Gross Collections minus refunds and returned checks) divided by Net Charges (Gross Charges minus Adjustments, excluding Bad Debt). It is important to recognize that this calculation is NOT the reciprocal metric of Bad Debt Percentage. NCR and Bad Debt Percentage do not share a common denominator.

**Bad Debt Percentage**: Bad Debt adjustments written off the billing system divided by Gross Charges. It is important to understand if the Bad Debt adjustments are net of any collections posted from the collection agency prior to comparing this metric across practices.

TREND METRICS AND VALUES

**Gross Procedures**: The units of service in a given time period. In almost all cases the unit of service is a CPT code.

**Gross Charges**: The initial charge before any adjustments.

**Gross Collections**: Actual payments received prior to refunds and returned checks.

**Adjustments**: Accounts receivable which are not collectable per payor contract or payor policy. This category would also include group defined discount adjustments exclusive of bad debt. It is important to be aware of whether the billing system includes or excludes bad debt from this category prior to comparing net collection rate across practices.

**Bad Debt Adjustments**: Accounts deemed uncollectible and consequently written off due to bad addresses, unpaid co-pays/deductibles/co-insurance due from patients, bankruptcies and balances due from deceased patients.

**Credit Balance over 60 Days Percentage**: Negative balance aging greater than 60 days.

**Gross Collection Rate (GCR)**: Gross Collections divided by Gross Charges. Comparing this metric over periods of time can be difficult if the practice has made adjustments to the fee schedule.

**Gross Charges/Procedure**: Used to trend growth in the practice if all fee factors have remained constant; measures group’s growth in the mix of service based upon charges; can be a difficult metric to compare if changes have been made to the group’s fee schedule.
Gross or Net Collections/Procedure*: Quickly becoming the most important metric in measuring the ultimate effectiveness of the A/R resolution cycle over periods of time; drives the top line revenue to a practice weighed against the volume of work covered by the practice; need to consider the impact of high volume, low charge value procedures on this metric (i.e. Computer Aided Detection); can be compared across practices with similar payor mix and modality mix. This metric may also be referred to as Yield Per Procedure (YPP).

Payor Mix*: Distribution of charges or payments by major pay class as a percent of the overall charges or payments of the practice.

CPT Distribution*: Comparison of services at the CPT level at different points in time.

A/R PROCESSING METRICS

Denial Percentage*: Measuring the procedure volume or charge value of denials against the overall procedures or charges of the practice; focusing on problem areas such as medical necessity, pre-certification denials, or registration denials can be a key to determining lost revenue of the practice.

Clean Claims Percentage*: Percent of claims paid on first submission to the primary payor.

Charge Capture*: This process varies by practice, but in general is defined as developing a mechanism to measure/ensure that all services performed/interpreted by the practice are later billed; the process could range from spot auditing to a one-for-one reconciliation of services rendered; measures the effectiveness of the billing process.

Charge Lag*: Measuring the total time from date of service to the date the service is billed; incremental measurements can also be helpful; measures the efficiency of the billing process.

EDI Percentage*: Measures the quantity of claims submitted electronically compared to total claims submitted (should be weighted by charge value) during a measurement period; measures the efficiency of the billing process.

ERA Percentage*: Measures the quantity of payments posted electronically via ERA (Electronic Remittance Advice) compared to the total payments posted; assists in staffing decisions and assessing the efficiency of the billing process.

Demographic Interface Percentage*: Measures the quantity of charges posted via a demographic interface compared to the total charges posted; assists in staffing decisions and assessing the efficiency of the billing process.

* Denotes metrics that can be compared across radiology groups. All other metrics are most useful when utilized to analyze trends within an individual practice.
References


