Leaving Money on the Table?

A Case Study: How an EMR boosted one clinic’s bottom line through improved E&M coding and charge capture.

Tracy L. Angelocci, M.D., F.A.A.P.
e-MDs, Vice President of Medical Informatics
**Focus:** Recognized problems of E&M under-coding and other lost charges

**Question:** Can an EMR improve E&M coding and charge capture? If so, what is the associated return on investment?

**Study Site:** Northwest Diagnostic Family Medical Center, from 05/01/00 through 08/31/00

**About Northwest Diagnostic:**
- Primary care practice located in Cedar Park, Texas
- 3.5 FTEs (physicians, physician assistants)
- Patient volume of 25,000 visits/year
- Integrated EMR and practice management system (topsSuite by e-MDs) in place for 2 years
The Problems:

**Provider down-coding of E&M levels**
- inability to apply detailed and confusing HCFA regulations in a practical manner
- inadequate time and resources required to produce detailed visit documentation
- fear of an audit

**Poor charge capture for supplies**
- lack of tools (such as charge sets) that prompt charge capture
- non-use of tools due to time pressures and lack of integration with the core workflow
The Potential Solution:

An integrated EMR and practice management system

Specific Tools:

- EMR facilitating rapid, extensive note documentation, used at the point-of-care. Complete, accurate documentation may justify higher E&M level coding.

- Physician-initiated billing: Diagnoses and procedures documented during note creation in the EMR. Physician selects E&M level assisted by built-in coding support tools. Billing codes automatically transfer from EMR to an invoice in the billing software.

- Secondary review of codes: Billing staff opens the invoice initiated in the EMR and applies charge capture aids, such as charge sets and prompts for frequently overlooked CPT codes.
Better E&M Coding?

- EMR allows for complete and accurate documentation at the point-of-care.
- Rapid documentation tools afford more time for more detailed history and examination, leading to higher than average E&M levels.
- E&M coding support in the EMR helps ensure accurate coding.

The assumption: Physicians at Northwest Diagnostic assume that the EMR assists them in coding to higher E&M levels, and that clinic income is increased as a result.

The test: Compare Northwest Diagnostic’s E&M coding patterns against state averages, and calculate the economic impact of an altered coding pattern.
Distribution of E&M Code Levels as a Percentage of Total Visits: Comparison of Northwest Diagnostic (NWD) and Texas Blue Shield

<table>
<thead>
<tr>
<th>E&amp;M CPT Code Level</th>
<th>NWD</th>
<th>Blue Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 (codes 99201, 99211)</td>
<td>5 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Level 2 (codes 99202, 99212)</td>
<td>6 %</td>
<td>24 %</td>
</tr>
<tr>
<td>Level 3 (codes 99203, 99213)</td>
<td>60 %</td>
<td>54 %</td>
</tr>
<tr>
<td>Level 4 (codes 99204, 99214)</td>
<td>28 %</td>
<td>15 %</td>
</tr>
<tr>
<td>Level 5 (codes 99205, 99215)</td>
<td>1 %</td>
<td>3 %</td>
</tr>
</tbody>
</table>


We compared:

**Actual reimbursement** received for those E&M CPT codes (billed 5/1/00 – 8/31/00, and collected through 11/9/00)

**Versus expected reimbursement**, had Northwest Diagnostic’s E&M billing distribution matched that of the state average

**Results:**

19% higher reimbursement than what would be expected based on the state’s average E&M distribution

$9.01 per visit increase in reimbursement, when averaged

$120,000 increase in revenue, when annualized
Better Charge Capture?

- When a physician orders a procedure (CPT) in the EMR, an automatic charge prompt for associated supplies (HCPCS) is displayed.

- The billing software prompts for frequently overlooked charges, such as those for venipuncture and specimen handling.

- These tools are part of the natural workflow, not additional processes.

**The assumption:** Built-in charge capture prompts lead to more complete billing, and clinic income is increased as a result.

**The test:** Determine Northwest Diagnostic’s total billing for supplies and other frequently overlooked charges, and tally the reimbursement for these items.
We measured:

**Actual reimbursement** received for HCPCS supply codes and for CPT codes for venipuncture (CPT 35145) and specimen handling (CPT 99000) (billed 5/1/00 – 8/31/00, and collected through 11/9/00)

**Results:**

$7.41 per visit increase in reimbursement, when averaged

$118,768 in revenue, when annualized
Conclusion:

Improved coding accuracy from a fully implemented, integrated EMR and Practice Management system can demonstrate a true return on investment.

The doctors at Northwest Diagnostic directly attribute their increased income to the documentation afforded by the EMR and to charge capture prompts.

These two items alone increase annual revenue by nearly a quarter of a million dollars.