The Cost Of Functional Dyspepsia
Results From A Large US Employer Database

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Presentation Outline

- Background on Functional Dyspepsia (FD)
- Study Objective
- Study Methodology / Database Descriptor
- Study Results
- Conclusion and Application
Epigastric pain or burning, postprandial fullness or early satiation, and no evidence of structural disease

Diagnosis of exclusion, vague condition to diagnose and treat

Approximately 25% of the population experiences symptoms consistent with dyspepsia accounting ~5% of the 560 million office visits in the US

Background - Functional Dyspepsia

- £450 million spent on prescribing anti-secretory medications\(^1,2\)
- Non-ulcer dyspepsia (NUD) cost-effective if payers are willing to pay $517/mo free from dyspepsia\(^3\)
- 47/1000 population annual frequency of FD consultations in Sweden\(^4\)
- $US 113,630/1000 annual cost for FD in Sweden\(^5\)

2 Nyren O, et al. 1985
5 Nyren et al, 1992
Objective

To assess the economic burden of FD associated with medical costs and work loss from an employer perspective
Methodology

- Person-centric database containing costs from multiple large geographically diverse US based employers
- Timeframe 2001-2004
- Claims data included pharmacy, medical, short- and long-term disability (STD, LTD), sick leave (SL), and productivity measurements
Comparisons were made between FD employees (ICD-9 536.8) and employees without FD.

Multiple regression techniques adjusting for differences in demographics, job-related variables, and Charlson Comorbidity Index (except for medical).

Only employees eligible for each specific benefit were included in the models for that benefit. Lost time costs include all costs from claims open at some point during the year following the index date.
Results

- 1,669 employees with FD and 274,206 employees without FD
- FD costs ($3,676/employee/yr) twice as high for direct medical and work absence measures \((P<0.0001)\)
- Medical and pharmacy costs were $3420 and $365 for FD \((P < 0.0001)\)
Results (cont)

- Work absence costs were SL $103 (P < 0.0001), STD $104 (P = 0.0370), LTD $7 (P=0.6551)
- Measured units of productivity were 2 units less/hour with the FD group (P=0.055)
### Results (cont)

<table>
<thead>
<tr>
<th>AHQR Categories*</th>
<th>Employees with FD</th>
<th>Employees without FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain</td>
<td>46.5%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Other GI disorders</td>
<td>28.1%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Abdominal pain screening suspected conditions</td>
<td>27.5%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Medical exam requiring further evaluation</td>
<td>24.2%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Residual codes ill defined symptoms</td>
<td>21%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Non-specific chest pain</td>
<td>20%</td>
<td>7%</td>
</tr>
<tr>
<td>Unknown diagnosis</td>
<td>19.8%</td>
<td>11.3%</td>
</tr>
</tbody>
</table>
## Results (cont)

<table>
<thead>
<tr>
<th>AHQR Categories*</th>
<th>Employees w/FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain</td>
<td>$308</td>
</tr>
<tr>
<td>Biliary tract disease</td>
<td>$299</td>
</tr>
<tr>
<td>Coronary atherosclerosis</td>
<td>$228</td>
</tr>
<tr>
<td>Stomach/duodenum disorders</td>
<td>$188</td>
</tr>
<tr>
<td>Esophageal disorders</td>
<td>$166</td>
</tr>
<tr>
<td>Gastritis and duodenitis</td>
<td>$163</td>
</tr>
<tr>
<td>Non-specific chest pain</td>
<td>$139</td>
</tr>
</tbody>
</table>

*p<0.05
Study Limitations

- Retrospective review
- Timeframe of diagnosis
- Claims processing errors
Conclusions

- FD patients have a variety of symptoms and their management is complex
- Confirms earlier work from Sweden, but shows that in the US, FD can be costly to employers
- Physicians need more education on the ROME III criteria
- Greater integration of this information into improving medical and pharmaceutical costs
??? QUESTIONS ???

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