Population Health: THE ELDERLY PATIENT with Diabetes

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May 16, 2014
The Department of Family Medicine at SUNY Downstate:
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Care gap that led to the Innovation

- To achieve best practices in diabetes care for older people (50% practice) with diabetes and
- To raise clinician awareness of practical, targeted strategies for effectively managing diabetes and
- Its related conditions (especially hypoglycemia and vascular) in this increasingly large patient population
- Who: Elderly patients with Diabetes (>70 yrs; Type 2DM; in practice >6 months)
- PI Data – Risk for Hypoglycemia Inpt
- Outpatient (little/no documentation)
- Who are our patients?
- How are we doing?
Key elements of the Innovation

- Define our population: Gender? Age? Lgth of dx
- How do we treat our patients? How many meds? Hypoglycemia? Do we set targets? Lipids, HgbA1c, BP
- Do we communicate targets to our patients?
  - Partner: Joslin Diabetes Center (Stats,$)
  - DFM set targets together based on preliminary data: 25 providers, >500 pts
- Education - feedback, formal, dinner, IT...
- Recollect data
- Analyze and report...COMMUNICATE
Description of the Innovation

- Preliminary data gathering
- Collect and analyze data
- Education
- Decide together – Need to Do? Who?
- Implementation Strategy
- Collect and analyze data
- How much did we learn?
- Before and after....
- Part PI, part Education, Translates right into patient care
Interesting Sample Data
Has the patient been having symptoms or has documented glucose numbers indicating hypoglycemia at this visit?

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow up</th>
<th>Baseline %</th>
<th>Follow up %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>8</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>No</td>
<td>64</td>
<td>78</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>Not noted</td>
<td>183</td>
<td>165</td>
<td>72%</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>253</td>
<td>251</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Hypoglycemic symptoms for patients with A1C < 7%
109 patients (42% of total) had A1C < 7% at baseline. 114 (45%) at follow up.

<table>
<thead>
<tr>
<th>Hypoglycemia symptoms reported</th>
<th>Baseline</th>
<th>Follow up</th>
<th>Baseline %</th>
<th>Follow up %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>3</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>35</td>
<td>24%</td>
<td>31%</td>
</tr>
<tr>
<td>Not noted</td>
<td>82</td>
<td>76</td>
<td>75%</td>
<td>67%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>109</td>
<td>114</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Is the documentation of LDL goal in chart?

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow up</th>
<th>Baseline %</th>
<th>Follow up %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>27</td>
<td>2%</td>
<td>11%</td>
</tr>
<tr>
<td>No</td>
<td>247</td>
<td>222</td>
<td>98%</td>
<td>89%</td>
</tr>
<tr>
<td>Total</td>
<td>253</td>
<td>249</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Bar chart showing:
- Baseline % for Yes: 2%
- Follow up % for Yes: 11%
- Baseline % for No: 98%
- Follow up % for No: 89%

Healthfirst 2014 Spring Provider Symposium
Innovations in Population Health Management
### Is the documentation of Blood Pressure goal in chart?

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow up</th>
<th>Baseline %</th>
<th>Follow up %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7</td>
<td>49</td>
<td>3%</td>
<td>20%</td>
</tr>
<tr>
<td>No</td>
<td>248</td>
<td>199</td>
<td>97%</td>
<td>80%</td>
</tr>
<tr>
<td>Total</td>
<td>255</td>
<td>248</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Bar chart showing the percentage of yes and no responses at baseline and follow-up.

- **Baseline %**: 97% Yes, 3% No
- **Follow-up %**: 80% Yes, 20% No
Number of Medications

- Baseline %
- Follow up %

- 1 - 4: 9%, 20%
- 5 - 9: 53%, 59%
- 10 - 14: 29%, 19%
- > 14: 8%, 2%
- Not noted: 0%, 1%
Comorbidities

None of the above: 70%
Other: 60%
Frail health: 50%
Dexterity problems: 40%
Depression: 30%
Dementia/memory problems: 20%
High cholesterol: 10%
High BP: 0%
Kidney problems: 90%
Neuropathy: 80%
Vision problems: 70%
Peripheral vascular disease: 60%
Stroke: 50%
Heart disease: 40%

Follow up %: 70%
Baseline %: 60%
Lessons Learned- Residents, Senior & Junior Attendings

We have a long way to go!

- A summary of lessons learned thus far:
  - **Easy:**
    - Collecting the data (Pre & Post)-Fellow & MS-3
    - Sharing the results-Confidential & Group
    - Setting targets
  - **Challenges:**
    - Individual education (computer - choice)
    - Meaningful implementation
      - Changing behavior
      - Documentation
Next step: Evolution...HUDDLE
Set the stage for the Medical Home

- There were two projects:
  - Cardio metabolic profile of patients
  - Elderly Diabetic
Summary

- Population Study
- Improved documentation
- Helped to form a team (First Giant Huddle)
- Lot of work
- Set and communicate targets
- Improved our Documentation
- Patients-center
- Best practices
- Worth It!
Look at ourselves—What & How we perform…Best?
Contact information

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