Follow-up Phone Calls to Improve Compliance with Blood Pressure Management

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**Background**

The Problem:
- Hypertension affects up to 25% of adults worldwide.
- Preventive interventions could:
  - Prevent 56,000 cardiovascular events (MI, CVA, etc.)
  - Prevent 13,000 deaths from cardiovascular cause
  - Save money
- But noncompliance is high; it is estimated:
  - 10% of anti-HTN doses on any given day are omitted
  - After 1 year, 43% not taking prescribed anti-HTN med

What do we do about that?
- Follow-up contact (electronic or phone)
  - Improved HbA1c
  - Improved use of daily glucose log
- Is this same approach generalizable to other chronic issues (i.e. hypertension)?

**References**


**Project Goal**

- Use follow-up communication with patients who have uncontrolled BP to improve compliance with lifestyle changes and medication regimens.
- Ultimate goal is improved blood pressure control

**Implementation**

- Using billing code, pts with HTN identified on a weekly basis
- BP at appt noted, enrolled if:
  - Systolic BP >140 or
  - Diastolic BP >90
- Pts born in odd years received follow-up; none for even years
- At next office visit:
  - BP recorded
  - Survey about following treatment plan

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**Mean Arterial Pressure at Office Visits**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = 0.0025</td>
<td>P = 0.0022</td>
</tr>
</tbody>
</table>

**Difference in Mean Arterial Pressure between Office Visits**

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = 0.02</td>
<td>P = 0.10</td>
<td></td>
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</tbody>
</table>

**Self-reported Treatment Plan Compliance**

<table>
<thead>
<tr>
<th>Question</th>
<th>Cases</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were you working on BP control prior to last appt?</td>
<td>Yes: 7</td>
<td>No: 1</td>
</tr>
<tr>
<td>If yes, had you been able to follow that treatment plan?</td>
<td>Yes: 5</td>
<td>No: 2</td>
</tr>
<tr>
<td>Since your last appt how often were you able to take your medication or make the lifestyle change you discussed?</td>
<td>Every day: 6</td>
<td>Most days: 1</td>
</tr>
<tr>
<td></td>
<td>Good initially: 1</td>
<td>About half: 0</td>
</tr>
<tr>
<td></td>
<td>Less than half: 0</td>
<td>Not at all: 0</td>
</tr>
</tbody>
</table>

**Discussion**

- Both groups had significant drop in BP at 2nd visit vs. 1st visit
- No significant difference between groups
- Trend towards larger BP change with follow-up
- Would a larger sample or longer study show significance?

- High self-reported compliance to treatment plans
- Was medication compliance the issue that needed addressing?

- Pt-reported hardest parts of BP control are lifestyle-related
- Better intervention might target this instead

- Anecdotally, there was positive feedback about phone calls
  - Patients seemed to like them
  - MA’s didn’t seem to be too burdened to do them

**Next steps?**

- Continue following up with hypertensive patients
- Possible significance with longer or larger study
- Follow-up phone calls for other conditions
  - Target the individuals &/or conditions where f-u needed
  - Improve patient support for diet, stress, and exercise
  - “Hardest parts” patients said, so address these