Inpatient Adherence to Topical Glaucoma Medications Before & After an Educational Intervention

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Purpose

- Assess topical glaucoma medication adherence rates (MAR) in an inpatient setting before and after an educational intervention

Methodology

- A nonrandomized comparative retrospective study of inpatients treated with topical glaucoma medications prior to (January 2014–December 2018, N=142) and after (August 2018–April 2019, N=36) an educational intervention targeting inpatient providers
- Administration of greater than 75% of doses defined adherence
- Educational intervention included e-mails to internal medicine and general surgery residents, inpatient physician assistant staff, UMN inpatient hospitalist providers, nursing staff and a weekly newsletter posting
- Outcome measures included adherence to topical glaucoma meds while hospitalized as an inpatient and whether adherence was associated with length of stay, number of medications, type of medication, admitting diagnosis, whether outpatient medication regimen was known at admission, and whether outpatient regimen was prescribed at admission

Results

<table>
<thead>
<tr>
<th>Medication Type</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostaglandin</td>
<td>N</td>
<td>Compliance</td>
<td>N</td>
</tr>
<tr>
<td>Beta blocker</td>
<td>76</td>
<td>58 (76.3%)</td>
<td>15</td>
</tr>
<tr>
<td>Carbonic anhydrase inhibitor</td>
<td>49</td>
<td>36 (73.5%)</td>
<td>6</td>
</tr>
<tr>
<td>Alpha agonist</td>
<td>39</td>
<td>29 (74.4%)</td>
<td>8</td>
</tr>
<tr>
<td>Anti muscarinic</td>
<td>11</td>
<td>7 (63.6%)</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>275</td>
<td>207 (75.3%)</td>
<td>47</td>
</tr>
</tbody>
</table>

Conclusions

- Inpatient topical glaucoma MAR has increased in the EMR era but further education of inpatient health care providers can improve adherence
- Attention to correct medication reconciliation on admission is significantly associated with appropriate compliance

References


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