**Review of Octreotide use for End-of-Life Symptom Management by Indication in an Inpatient Hospice Setting**

### Background:
- Hospice care focuses on management of end-of-life care with a limited formulary for management of pain, dyspnea, and agitation.
- Medications are often repurposed to manage symptoms.
- Octreotide is a somatostatin analogue and works by inhibiting intestinal motility, inhibiting endocrine and exocrine secretions, inhibits cell proliferations and modulates neurotransmission.
- Octreotide has been shown to be helpful in acromegaly,4,5 adjuvant pain control,4,5 pain in hypertrophic pulmonary osteoarthropathy,4 postoperative drainage control,4 upper GI bleeding,4 malignant chyllothorax,4 bronchirrhea,10 lymphorrhea,11 autosomal dominant polycystic kidney disease,12 glucagonoma-related necrotic migratory erythema,13 Merkel Cell cancer,14 noninfectious diarrhea from VIPomas, carcinoïd tumors,15-17 preservation of bowel function in malignant bowel obstruction (MBO),18 nausea and vomiting after gastrostomy tube placement,19,21 malignant entero-cutaneous fistulas,21 liver disease with cirrhosis, ascites, varices,21-24 and MBO.25-27

### Problem:
- Given the limited formulary for inpatient hospice care, we wanted to review how we have used octreotide in our inpatient hospice unit.

### Objectives:
- In the hospice setting, octreotide’s role in management of symptoms of nausea, emesis, and abdomen pain from inoperable malignant bowel obstruction is well recognized. We wanted to review how we have used octreotide in our inpatient hospice unit.

### Methods:
- Patients receiving care at the inpatient Zilber hospice unit from 1/2019 to 12/2022 were identified by pharmacy.
- Patients ranged from 37 to 95 years old, and were mostly female.
- Patient charts were reviewed retrospectively to collect data on octreotide indication, admit diagnosis, patient demographics, source of admission, admission date, length of stay (LOS), and presence or absence of palliative care (P.C.) consult.
- Data was stored in an Excel file on AAH drive.

### Results:
- Total of 87 patients received octreotide from 1/2019 to 12/2022.
- Patients were a median of 66 years old, and the majority (62%) were female.
- The median length of stay was 7 days.
- Nearly three quarters of patients received a palliative care consult.
- 13 unique indications for octreotide were documented with malignant bowel obstruction being the most common and GI bleeding (GIB) the second most common. See Figure 1 for all documented indications.
- The average length of stay was longer for all indications of octreotide except malignant bowel obstruction in patients who received a palliative care consult.

### Conclusions:
- We hope to offer guidance and a review of repurposing for octreotide at a future education event.
- In 47% of patients, octreotide was used for malignant bowel obstruction. This is consistent with published data and is not surprising since hospice patients are usually not surgical candidates, cost of hospice care and access to radiology also limits intervention like venting gastrostomy or nasogastric tubes.
- Nearly 75% of patients had a palliative care consult but despite patients having symptoms of pain, nausea and emesis, there were no recommendations for octreotide prior to arrival to inpatient hospice.
- Involvement of palliative care was associated with longer length of stays indicating more timely transition and patient having more meaningful time and/or interactions at end-of-life with family.

### Table 1:

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Median (Range) or n (%)</th>
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<tbody>
<tr>
<td>Age at Admission</td>
<td>66 (37-95) years</td>
</tr>
<tr>
<td>Sex</td>
<td>Male 54 (62%) Female 33 (38%)</td>
</tr>
<tr>
<td>Palliative Care Consult</td>
<td>Yes 73 (84%) No 14 (16%)</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>7 (0-30) days</td>
</tr>
<tr>
<td>Discharge Disposition</td>
<td>Deceased 75 (86%) Alive 12 (14%)</td>
</tr>
</tbody>
</table>

### Figure 1: Indication For Octreotide

- Malignant Bowel Obstruction 47%
- Gastrointestinal Bleed 15%
- Ascites 12%
- Nausea/Vomiting 6%
- Other 13%
- Partial Small Bowel Obstruction 2%
- Wound Drainage 2%

*Other indications (n = 1 for all)*

- Bleeding fistula
- Bleeding tumor
- Chest tube drainage
- Colovaginal fistula
- Diarrhea
- Hematuria
- HRS
- Ileus/fecal impaction
- Perforated viscus
- Pulmonary and GI secretions

### Length of Stay by Indication and Absence or Presence of Palliative Care Consult

- **P.C. Consult**
  - Bowel obstruction due to hernia 3%
  - Ascites 12%
  - Malignant Bowel Obstruction 47%
  - Gastrointestinal Bleed 15%
  - Other 13%
  - Nausea/Vomiting 6%
  - Partial Small Bowel Obstruction 2%
  - Wound Drainage 2%

- **No Consult**

### Table 2: Disposition

<table>
<thead>
<tr>
<th>Indication</th>
<th>Discharge Disposition (% of patients)</th>
</tr>
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<tbody>
<tr>
<td>Gastrointestinal Bleed</td>
<td>Male 45 (60%) Female 37 (38%)</td>
</tr>
<tr>
<td>Ascites</td>
<td>Male 48 (64%) Female 37 (38%)</td>
</tr>
<tr>
<td>Other</td>
<td>Male 45 (60%) Female 37 (38%)</td>
</tr>
<tr>
<td>Partial Small Bowel Obstruction</td>
<td>Male 45 (60%) Female 37 (38%)</td>
</tr>
<tr>
<td>Wound Drainage</td>
<td>Male 45 (60%) Female 37 (38%)</td>
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