The most commonly reported side effect of G-CSFs is bone pain.1
Approximately 25-38% of oncology patients receiving chemotherapy experience bone pain associated with the administration of G-CSFs as supportive therapy.1
The exact mechanism related to the occurrence of bone pain is not well understood.1
Currently, there are limited evidence-based recommendations with regard to pharmacologic interventions for preventing and treating G-CSF related bone pain.
Oncology nurses must remain abreast of evidence-based recommendations regarding pharmacologic interventions for preventing and treating G-CSF associated bone pain.

Do nurses who participate in a structured educational program demonstrate greater knowledge regarding pharmacologic interventions for reducing the incidence of G-CSF related bone pain, in comparison with their pre-participation knowledge?

To guide clinical practice at a National Cancer Institute-designated Comprehensive Cancer Center’s Infusion Center with the latest guidelines and recommendations

The goal of this evidenced-based educational program was:

To provide clinical nursing staff with evidence-based recommendations about pharmacologic interventions used to prevent and treat G-CSF related bone pain in oncology patients undergoing chemotherapy

To guide clinical practice at a National Cancer Institute-designated Comprehensive Cancer Center’s Infusion Center with the latest guidelines and recommendations

Results

<table>
<thead>
<tr>
<th>Top 4 Questions Clinical Nursing Staff Struggled With The Most</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many days after the administration of G-CSF’s are patients most likely to experience bone pain?</td>
<td>11</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>There is strong evidence supporting that loratadine is effective in preventing or treating G-CSF related bone pain. T/F</td>
<td>5</td>
<td>16</td>
<td>55</td>
</tr>
<tr>
<td>There is strong evidence supporting that naproxen is effective in preventing or treating G-CSF related bone pain. T/F</td>
<td>11</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>How many days total should loratadine be administered for?</td>
<td>7</td>
<td>20</td>
<td>65</td>
</tr>
</tbody>
</table>

Mean percentage score for pre-test: 75%
Mean percentage score for post-test: 94.5%
Overall average score improvement: 19.5%

Clinical nursing staff:

- Gained significant knowledge for making recommendations to oncology patients at risk of experiencing G-CSF related bone pain
- Were able to identify the most beneficial pharmacologic interventions associated with G-CSF related bone pain

Limitations:
- Small sample size
- Single educational session
- Nursing staff challenges to participate due to direct patient care

Nurses’ awareness about evidence-based pharmacologic interventions is essential for the management of G-CSF related bone pain in oncology patients.

The re-assessment of nurses’ knowledge about the management of G-CSF related bone pain, and the development of a standardized policy and/or educational tool may be considered for future projects.

References


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