Neutropenic Fever\textsuperscript{1} Outpatient Treatment For Solid Tumor Patients (18 years and older)

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\begin{itemize}
  \item Complete history and physical exam
  \item Start IV fluids
  \item CBC with differential, BMP, lactic acid
  \item Blood cultures (with a set collected from each lumen simultaneously if CVC present and 1 peripheral site); other cultures (i.e., sputum culture, urinalysis with culture and sensitivity; respiratory PCR multiplex panel) only if clinically indicated
  \item Chest x-ray or other tests as clinically indicated
  \item Calculate MASCC Risk Index score (see Appendix A)
\end{itemize}

Assess if patient is considered low risk: (i.e., MASCC Risk Index score \( \geq 21 \) and no other complicating factors present) \textbf{and} meets all of the following criteria for outpatient treatment:

\begin{itemize}
  \item Solid tumor
  \item Able to tolerate oral medications
  \item Able to tolerate fluids
  \item Does not use feeding tube as primary route for nutrition and medications
  \item No confirmed focus of infection
  \item Resides within 1 hour travel time of MD Anderson
  \item Has a 24-hour caregiver
\end{itemize}

\begin{itemize}
  \item First dose of each antimicrobial should be given STAT in the EC for all febrile neutropenic patients
  \item Patient should be observed \( \geq 4 \) hours after initial dose of antimicrobial prior to discharge
  \item Selection of antimicrobials should be performed after careful review of antimicrobial allergies, recent antimicrobial exposure, past infections and microbiological studies
  \item First line therapy:\textsuperscript{a} Ciprofloxacin 750 mg PO twice daily \textbf{and} Amoxicillin/clavulanic acid 875 mg PO twice daily each for 7 days
  \item First line therapy\textsuperscript{b} if penicillin allergy (i.e., IgE-mediated or other serious reaction): Ciprofloxacin 750 mg PO twice daily \textbf{and} Clindamycin 600 mg PO three times daily each for 7 days
  \item Second line therapy\textsuperscript{b}: Levofoxacin 750 mg PO daily for 7 days
\end{itemize}

\begin{itemize}
  \item Tolerates therapy \textbf{and} no persistent fever?
\end{itemize}

\begin{itemize}
  \item Yes
    \begin{itemize}
      \item Has access to transportation and telephone at residence
      \item Age \( \geq 18 \) years old
      \item No quinolone allergy for oral regimens
      \item No colonization with fluoroquinolone-resistant or multi-drug resistant organisms
      \item No history of non-compliance
      \item Not currently on antibiotics
      \item Schedule patient for outpatient follow up\textsuperscript{3}
    \end{itemize}
  \item No
    \begin{itemize}
      \item Refer to Neutropenic Fever Inpatient Adult Treatment (Solid Tumors) algorithm
    \end{itemize}
\end{itemize}

\begin{itemize}
  \item Able to adhere to outpatient follow up\textsuperscript{3}?
\end{itemize}

\begin{itemize}
  \item Yes
\end{itemize}

\begin{itemize}
  \item No
    \begin{itemize}
      \item Refer to Neutropenic Fever Inpatient Adult Treatment (Solid Tumors) algorithm
    \end{itemize}
\end{itemize}

\begin{itemize}
  \item \textsuperscript{1} ANC \(< 1 \) K/microliter and temperature \( \geq 38.3^\circ\text{C} \) or equal to \( 38^\circ\text{C} \) for 1 hour or longer
  \item \textsuperscript{2} Doses indicated are for patients with normal renal/hepatic function
  \item \textsuperscript{3} See Appendix B: Outpatient Follow up
  \item BMP = basic metabolic panel
  \item MASCC = Multinational Association of Supportive Care in Cancer
  \item NF = neutropenic fever
\end{itemize}

\textsuperscript{a} 
\textsuperscript{b} 
\textsuperscript{3}
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APPENDIX A: Multinational Association for Supportive Care in Cancer (MASCC) Risk Index Score

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burden of illness: no or mild symptoms</td>
<td>5</td>
</tr>
<tr>
<td>No hypotension</td>
<td>5</td>
</tr>
<tr>
<td>No chronic obstructive pulmonary disease</td>
<td>4</td>
</tr>
<tr>
<td>Solid tumor</td>
<td>4</td>
</tr>
<tr>
<td>No dehydration</td>
<td>3</td>
</tr>
<tr>
<td>Burden of illness: moderate symptoms</td>
<td>3</td>
</tr>
<tr>
<td>Outpatient status</td>
<td>3</td>
</tr>
<tr>
<td>Age &lt; 60 years</td>
<td>2</td>
</tr>
</tbody>
</table>

- “Burden of illness” not cumulative
- Patients with score ≥ 21 are considered low risk

APPENDIX B: Outpatient Follow Up

- Schedule outpatient visit for Days 2, 3 and 7; and phone follow-up for Days 4, 5 and 6
- Day 2: CBC with differential; repeat creatinine if baseline greater than 1.2 mg/dL.
- Day 3: CBC with differential, repeat creatinine
- Day 7: CBC with differential, repeat creatinine or phone follow-up if NF has resolved
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SUGGESTED READINGS


Continued on next page
SUGGESTED READINGS - continued


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DEVELOPMENT CREDITS

This practice consensus statement is based on majority opinion of the Neutropenic Fever experts at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

Antimicrobial Stewardship Team†
Samuel L. Aitken, PharmD (Pharmacy Clinical Programs)
Patrick Chaftari, MD (Emergency Medicine)
Tami N. Johnson, PharmD (Pharmacy Clinical Programs)
Victor E. Mulanovich, MD (Infectious Diseases)
Loretta Nastoupil, MD (Lymphoma/Myeloma)
Terry W. Rice, MD (Emergency Medicine)
Frank P. Tverdek, PharmD (Pharmacy Clinical Programs)
Mary Lou Warren, DNP, RN, CNS-CC*

† Core Development Team Lead
* Clinical Effectiveness Development Team