Neutropenic Fever Outpatient Treatment For Solid Tumor Patients (15 years and older)

Pertinent characteristics of neutropenic fever patients

- Complete physical exam
- Heme Survey with ANC, BUN, creatinine, sodium, potassium, chloride, CO2
- Urinalysis
- Lactic acid
- Urine culture and sensitivity, blood cultures times two (CVC and peripheral) and other cultures as clinically indicated
- Chest x-ray if clinically indicated (signs/symptoms of respiratory involvement)
- Calculate MASCC score (See Appendix A)

Patient must meet all of the following criteria for outpatient treatment:

- Solid tumor
- Able to tolerate oral medications
- Able to tolerate fluids
- Does not use PEG as primary route for nutrition and medications
- Temperature greater than or equal to 38.3°C
- ANC less than or equal to 1 K/microliter done within 24 hours
- No confirmed focus of infection
- Lives within 1 hour travel time of MDACC
- Has a 24 hour caregiver
- Has access to transportation and telephone at residence
- Not currently on antibiotics
- 15 years or older
- No quinolone allergy for oral regimens
- Patient is considered low risk
- No multi-resistant organism colonization

Criteria met?

Yes

- Antibiotics should be given urgently in all neutropenic patients who are febrile
- Patient should be observed 4 hours prior to discharge
- Combination therapy is preferred:
  - Ciprofloxacin 750 mg PO plus Amoxicillin/clavulanic acid 875 mg PO each for 1 dose only (with prescription for ciprofloxacin 750 mg PO twice a day plus amoxicillin/clavulanic acid 875 mg PO twice a day for seven days)
- Combination therapy if true penicillin allergy:
  - Clindamycin 600 mg PO for 1 dose plus Ciprofloxacin 750 mg PO for 1 dose (with prescription for clindamycin 600 mg PO three times a day plus Ciprofloxacin 750 mg PO twice a day both for 7 days) or
  - Azithromycin 500 mg PO for 1 dose plus Ciprofloxacin 750 mg PO for 1 dose (with prescription for azithromycin 500 mg PO for 1 dose daily plus Ciprofloxacin 750 mg PO twice a day a day both for 7 days) or
- Monotherapy (No randomized control trials):
  - Levofloxacin 750 mg PO for 1 dose (with prescription for levofloxacin 750 mg PO daily for remainder of 7 days) or
  - Moxifloxacin 400 mg PO for 1 dose (with prescription for moxifloxacin 400 mg PO daily for remainder of 7 days)

No

Refer to “Neutropenic Fever Inpatient Treatment” Algorithm

NOTE: Doses indicated are for patients with normal renal/hepatic function.

If unable to adhere to outpatient management of neutropenic fever, refer to appropriate clinical management.

Days 2, 3 and 7 and phone follow-up for Days 4, 5 and 6

Day 2: Heme Survey with ANC; Creatinine if level on Day 1 greater than 1.2 mg/dL and repeat cultures (if clinically indicated)

Day 3: Heme Survey with ANC, Creatinine and repeat cultures (if clinically indicated)

Day 7: Heme Survey with ANC and Creatinine IF NF resolved, follow up by phone

Schedule outpatient visit for

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Approved by The Executive Committee of the Medical Staff on 08/25/2015
**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 or no previous fungal infection</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 less than 60 years</td>
<td>2</td>
</tr>
</tbody>
</table>

"Burden of illness" not cumulative.  
Maximum theoretical score 26.  
Patients with score of 21 or greater are considered low risk.

NOTE: MASCC Score will be implemented once EMR operational in EC
Neutropenic Fever Outpatient Treatment For Solid Tumor Patients (15 years and older)

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. Based on general principles, local microbiology and susceptibility/resistance patterns should be taken into consideration when selecting antibiotics.

SUGGESTED READINGS


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SUGGESTED READINGS - continued


This practice consensus algorithm is based on majority expert opinion of the Neutropenic Fever Work Group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following core group members:

- Patrick Chaftari, MD
- Tami N. Johnson, PharmD, BCNSP, BCPS
- John T. Patlan, MD
- Terry W. Rice, MD
- Kenneth V. Rolston, MD

Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. Based on general principles, local microbiology and susceptibility/resistance patterns should be taken into consideration when selecting antibiotics.