

Low-Risk Fever and Neutropenia Evaluation

Associated Power Plans: EDP Fever & Suspected Neutropenia ED & Hem/Onc Clinic Standing Orders, EDP Fever and Neutropenia, Fever and Neutropenia, Low-Risk Fever and Neutropenia



Children's Mercy
KANSAS CITY

Evidence Based Practice

Standard Procedures

- Triage level ESI 1 or 2
- Rapid rooming
- CBC with differential
- Blood cultures from all CVL lumens prior to antibiotic administration
- [Administration of IV broad-spectrum antibiotics within 1 hour of arrival](#)
- Evaluate for possible focus of infection

Included Diagnosis (must meet one):

- Acute lymphoblastic leukemia or lymphoma in maintenance phase of therapy
- Solid tumor/brain tumor
- Hodgkin's lymphoma
- Langerhans cell histiocytosis

Initial LOW RISK Exclusion Criteria:

To be assessed by ED or Hem/Onc provider; if any are true, then patient DOES NOT qualify as LOW RISK [Link to Provider Assessment Checklist](#)

- Age \leq 12 months
- Not tolerating oral intake, including meds
- H&P not reassuring
- Vital signs abnormal for age (except mild tachycardia with fever)
- Signs of serious infection
- Does not live (or is not able to stay) within 60 min of CMH AH campus
- Not able to receive phone follow-up
- Not able to return for follow-up within 72 hours
- Critical note in Cerner stating patient is NOT eligible for outpatient fever/neutropenia management
- Mucositis
- > 1 fluid bolus given
- Trisomy 21
- Any surgery in the preceding 2 weeks (excluding CVL placement)
- VP shunt/Ommaya reservoir placed within preceding 6 weeks OR meningeal signs

Additional LOW RISK Exclusion Criteria:

To be assessed by Hem/Onc provider; if any are true, then patient DOES NOT qualify as LOW RISK [Link to Provider Assessment Checklist](#)

- Infant ALL (diagnosed in first year of life)
- AML
- History of allogeneic BMT
- History of autologous BMT within 100 days
- Burkitt lymphoma/leukemia
- HLH
- Severe aplastic anemia
- Primary immunodeficiency
- Received > 15 days of glucocorticoids in the last 30 days
- Currently using broad-spectrum antimicrobials (excluding TMP-SMX for PJP prophylaxis)
- Other concerns from primary oncology team for reliability or safety

Oncology patient presents to CMH
Oncology clinic or CMH Adele Hall ED with
fever and **suspected** neutropenia

Follow standard procedures

Is patient
neutropenic?

Fever (temps may be oral or axillary)

- One temperature \geq 38.5° C (101.3° F)
- or-
- Two temperatures > 38.0° C (100.4° F) separated by at least 1 hour at home or in Oncology clinic/ED

Neutropenia

- ANC \leq 500 cells/microliter

Contact Hem/Onc provider
for additional
recommendations

Does patient have one of
the included diagnoses?

Yes

Does patient
qualify as
LOW RISK by initial
assessment?

Yes

Contact Oncology referral doctor (during
business hours) or on-call Hem/Onc
provider (after hours) if not already involved
to perform additional assessment of risk

Does
patient qualify as
LOW RISK by Hem/Onc
assessment?

Yes

Patient **DOES** meet LOW
RISK criteria. Proceed to
[Low-Risk Fever and Neutropenia
Treatment Pathway](#) to initiate
outpatient therapy.*

Patient **DOES NOT** meet LOW
RISK criteria for outpatient
management. Contact Hem/Onc
provider and proceed with standard
treatment and admit.



QR code for
mobile view

Abbreviations:

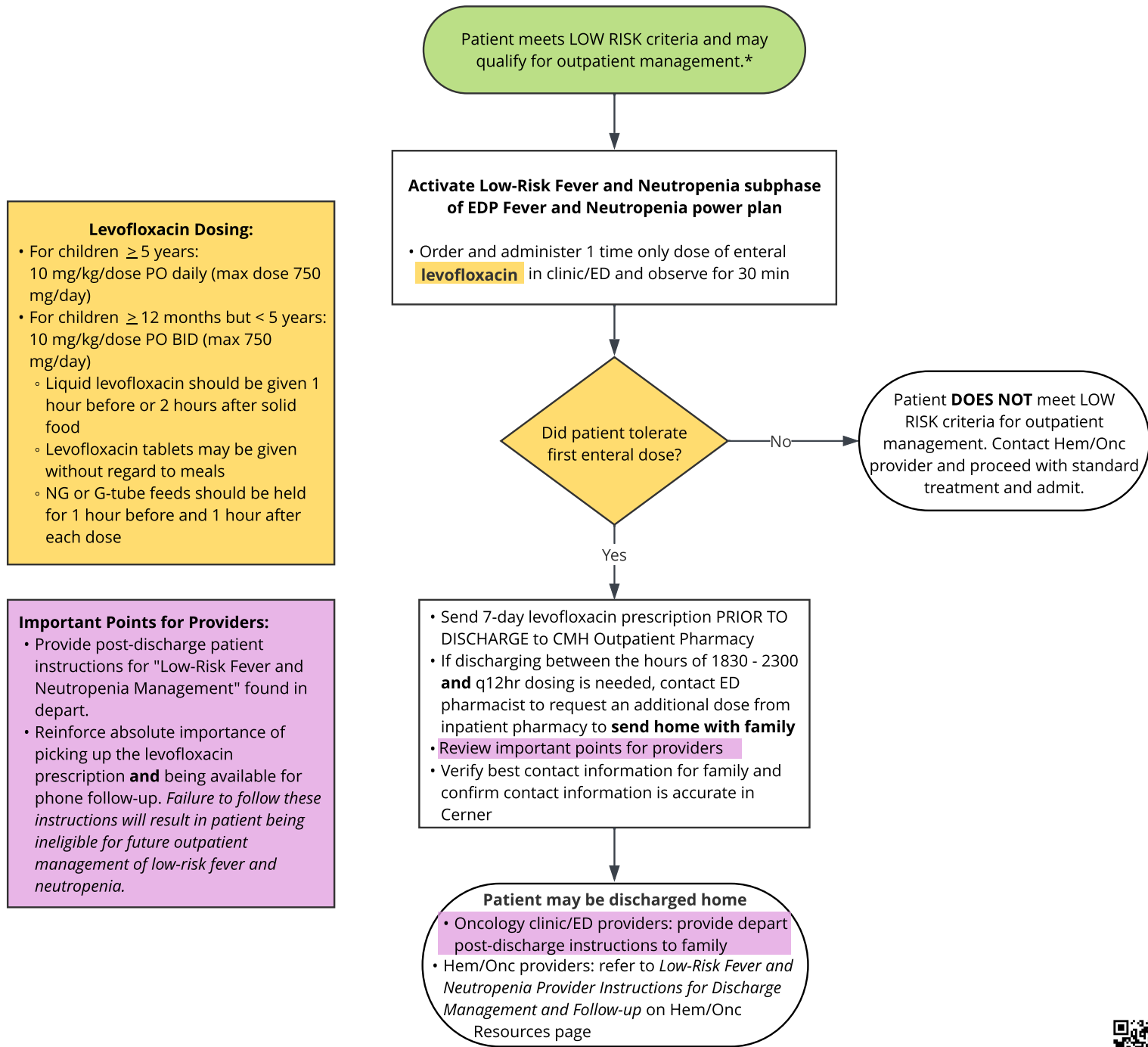
ESI = Emergency Severity Index
ANC = Absolute neutrophil count
AML = Acute myelogenous leukemia
ALL = Acute lymphoblastic
leukemia/lymphoma
BMT = Bone marrow transplant
HLH = Hemophagocytic
lymphohistiocytosis
CVL = Central venous line

*If the examining provider, on-call Hem/Onc provider, or the family is uncomfortable with the appropriateness or safety of outpatient management of low-risk fever/neutropenia, the patient should be admitted

Contact: EvidenceBasedPractice@cmh.edu

[Link to synopsis and references](#)

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Levofloxacin Dosing:

- For children ≥ 5 years: 10 mg/kg/dose PO daily (max dose 750 mg/day)
- For children ≥ 12 months but < 5 years: 10 mg/kg/dose PO BID (max 750 mg/day)
 - Liquid levofloxacin should be given 1 hour before or 2 hours after solid food
 - Levofloxacin tablets may be given without regard to meals
 - NG or G-tube feeds should be held for 1 hour before and 1 hour after each dose

Important Points for Providers:

- Provide post-discharge patient instructions for "Low-Risk Fever and Neutropenia Management" found in depart.
- Reinforce absolute importance of picking up the levofloxacin prescription **and** being available for phone follow-up. *Failure to follow these instructions will result in patient being ineligible for future outpatient management of low-risk fever and neutropenia.*



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***If the examining provider, on-call Hem/Onc provider, or the family is uncomfortable with the appropriateness or safety of outpatient management of low-risk fever/neutropenia, the patient should be admitted** If the rounding inpatient team the next day judges that the patient meets the above criteria, the patient may be discharged with a prescription for levofloxacin and follow-up as above.

Each primary oncology team **MUST** place a Critical Note in Cerner for any patient that they feel would **NOT** be eligible for outpatient management of low-risk fever and neutropenia despite meeting the Diagnosis and Clinical criteria. Ideally, each primary oncology team will place a Critical Note in Cerner for every patient stating definitively whether or not they would be eligible for outpatient management of low-risk fever and neutropenia