



Common and Uncommon Side Effects

A Deeper Dive into TB Nurse Case Management
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Catalina Navarro has the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this educational activity



Objectives

- List the most common and uncommon side effects of TB meds
- Review GI upset as the most common side effect of TB meds
- Describe the characteristics of drug rash
- Describe various skin conditions
- Discuss the nursing interventions for drug rashes



First-line Drugs

✓ Isoniazid (INH)



✓ Rifamycins

- Rifampin (RIF)
- Rifabutin (RFB)
- Rifapentin (RPT)



✓ Ethambutol (EMB)



✓ Pyrazinamide (PZA)



✓ Fluoroquinolones

Levofloxacin

Moxifloxacin



Common Side-Effects of TB Meds

INH <ul style="list-style-type: none">• G.I. upset• Rash• Hepatotoxicity• Peripheral neuropathy	Rifampin <ul style="list-style-type: none">• G.I. upset• Rash• Hepatotoxicity• Thrombocytopenia, hemolytic anemia• Renal toxicity• Flu-like syndrome• Orange staining of body fluids	Rifabutin <ul style="list-style-type: none">• Rash/Skin discoloration• Hepatotoxicity• Leukopenia• Thrombocytopenia• Uveitis• Arthralgias
PZA <ul style="list-style-type: none">• G.I. upset• Rash• Hepatotoxicity• Arthralgias• Gout (rare)	Ethambutol <ul style="list-style-type: none">• Optic Neuritis• Rash	Fluoroquinolones <ul style="list-style-type: none">• G.I. upset• Dizziness• Hypersensitivity• Photosensitivity• Headaches, tendonitis, tendon rupture• Insomnia



Adverse Drug Events? Side-Effects? Toxicity?

Patient likely cannot differentiate - they all feel bad!



- Careful assessment before treatment may allow some symptoms to be attributed to other causes
- Most TB patients **complete their treatment without any** significant adverse drug effects
- Most of the **side effects are manageable** and do not require stopping the medication

Discuss Benefits and Risks

Most patients are willing to continue TB meds if they:

- ✓ Understand the benefit of treatment
- ✓ Know that symptoms improve after the first several weeks
- ✓ Are assure that you are addressing their problems



Most Common Side-Effects



G.I. Upset

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Gastrointestinal Upset

- Common in the first few weeks of therapy
- Nausea/vomiting/diarrhea (NVD)
- Epigastric burning, abdominal distention or bloating

** Exclude hepatitis



Nursing Interventions

- Administer antiemetic (Zofran)
- Encourage hydration (Sports drinks – electrolyte replacement)
- Give a light snack before meds
- Try relaxation and/or distraction techniques

**** Administer antacids but NOT given within 2 hours of fluoroquinolones**



Monitoring Gastrointestinal (GI) Upset

- Evaluate the interventions
 - Nausea decreased?
 - Persistent throughout the day?
 - May need to stop the offending medication
 - Is there an adequate replacement?
 - **If no**, patient may need to tolerate some n/v.
 - **If yes**, consider switching medication
 - **May need expert consultation before switching meds



Rash

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What are Drug Rashes?

- **Body's reaction** to a certain medicine
- Medicines linked to every type of rash, ranging from **mild to life-threatening**.
- Timing of the rashes vary:
 - ✓ Right away, or
 - ✓ A few weeks after you first take the medicine.
- Rashes caused by medicines can be put into one of 2 groups:
 - ✓ Caused by an **allergic reaction** to the medicine
 - ✓ Unwanted **side-effect** of a certain medicine



Other Possible Causes

- Insect bites
- Scabies
- Contact dermatitis
 - Question patient about new soaps, lotions, perfumes, laundry detergents, etc.
- Sunburn
- Dry skin
- Other drugs, especially new agents
- Viral or fungal infections



Where should I start?

The components of a Rash *Assessment* include:

- Physical assessment
- Gathering of episode (specific information/history)
- Obtaining lab and other data



Physical Assessment

1. Identify the **location** and **distribution** of lesions
2. Evaluate the **texture**
3. **Color**
4. Identify the **size** (the shape of one lesion or the arrangement of clusters of lesions)
5. Warm to the touch
6. Inspect oral mucosa



Mild Rash

- Common
- Often resolve after first several weeks of treatment
- Usually do not require stopping medication
- Treated symptomatically with Benadryl, other antihistamines, low-dose prednisone



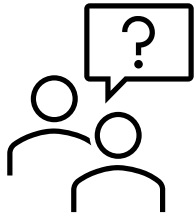
Describe the Rash...





Skin Conditions

Gallery Wall Exercise



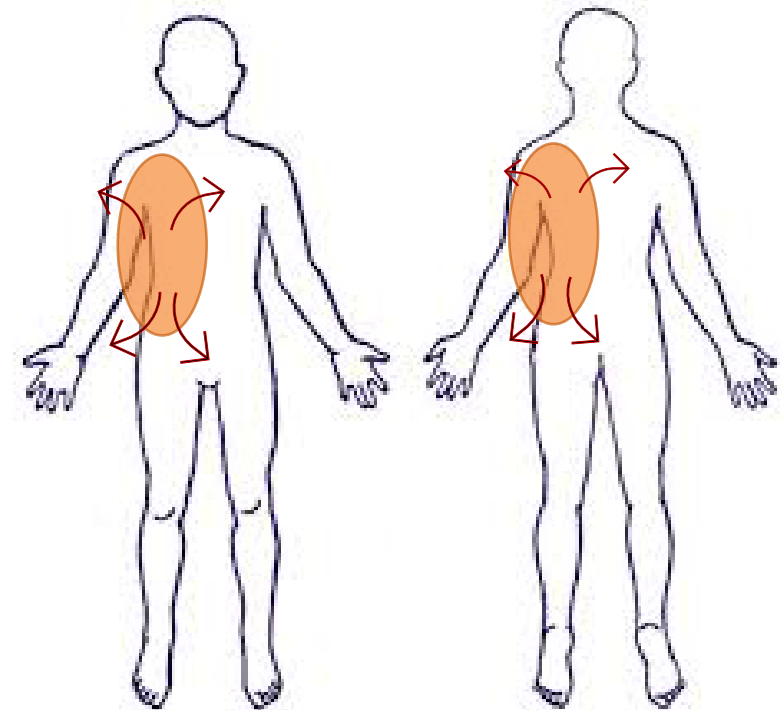
Questions to Ask the Patient

- Are you allergic to any medicines?
- Any *other* known allergies? Food?
- What other medication or remedies have you been taking?
- When did you first notice the reaction?
- Is it: Itchy or painful?
- Have you been using a different detergent?
- Any changes in your lifestyle?



Common Drug Rash Presentation

- Exanthematous (**maculopapular**) drug eruption, is the most common drug hypersensitivity reaction
- Maculopapular exanthems account for **80 to 90** percent of cutaneous drug reactions
- Rash resolution may take several days after the TB med is discontinued



<https://www.uptodate.com/contents/exanthematous-maculopapular-drug-eruption>

Nursing Interventions for Drug Rashes

- Hold medication and seek further medical evaluation if:
 - Signs of allergic serious reaction (e.g., angioedema)
 - Hematologic or liver function abnormalities are present
 - Fever
- The condition usually clears up if you stop taking the medicine that is causing the reaction.
- For minor skin reactions moisturizing lotion may be helpful (dry skin/itching)
- Other treatment may include:
 - Antihistamines
 - Hydrocortisone cream for local rash
 - Corticosteroids (low doses of prednisone)




Nursing Interventions for Anaphylaxis

- **Symptoms:**

- ✓ Rapid onset of rash
- ✓ Swollen of airway
- ✓ Hypotension
- ✓ Gastrointestinal symptoms



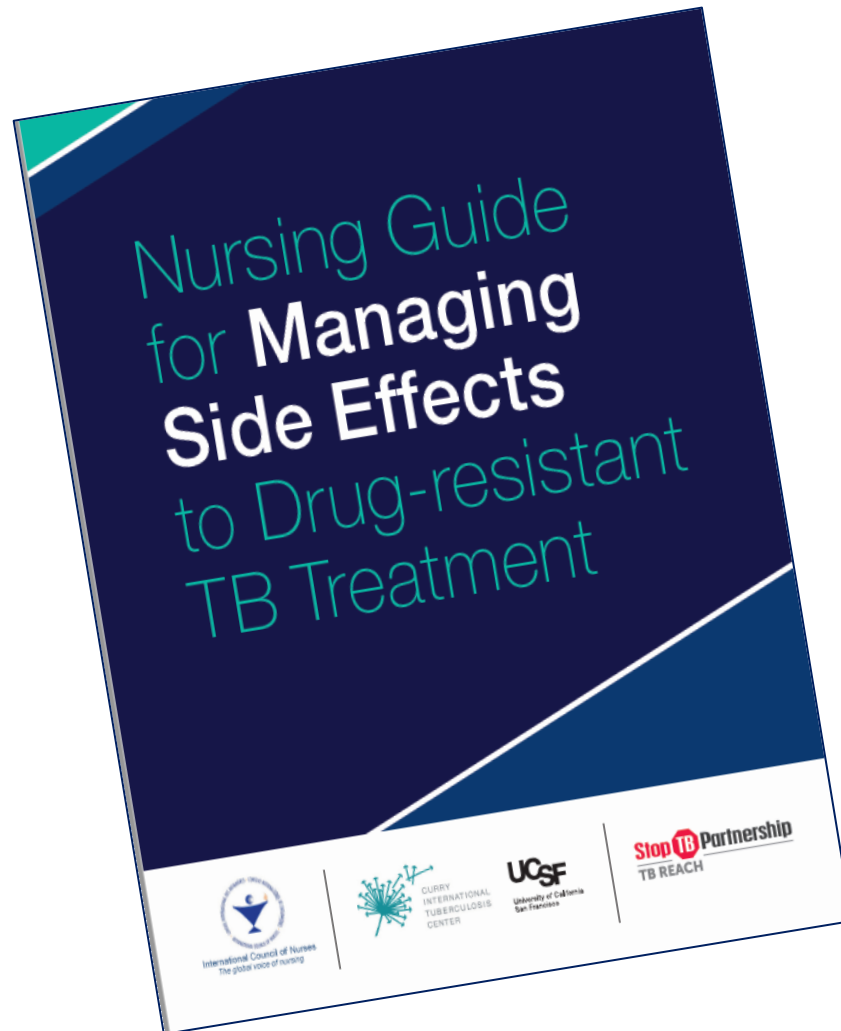
- Initiate standard emergency protocol (Including performing basic life support by maintaining patient's airway, breathing and circulation) then refer for hospitalization and emergency care
- **Document the reaction** 
- Counsel the patient never to use the offending medication again



Nursing Guide

The guide is designed to:

- 1) Identify symptoms that may indicate a side effect related to DR-TB treatment or antiretroviral medication
- 2) Assess for severity as well as other potential contributors
- 3) Intervene appropriately to minimize patient discomfort, reduce side effect progression, and ultimately support successful treatment completion



Thank You!

