Dose Counting Exercise

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September 23, 2015

TB Nurse Case Management
September 22-24, 2015
San Antonio, TX

Diana Fortune, RN, BSN has the following disclosures to make:

• No conflict of interests
• No relevant financial relationships with any commercial companies pertaining to this educational activity
Standard Dose Counting

- Treatment Completion = 365 days from initiation of treatment

- Duration of treatment
  - Six (6) months = 26 weeks of treatment
    - Initial Phase 8 weeks
    - Continuation Phase 18 weeks

- Nine (9) of treatment = 39 weeks of treatment
  - Initial Phase 8 weeks
  - Continuation Phase 31 weeks

If the initial phase is always 8 weeks & the patient is treated for 52 weeks, how long is the continuation phase?

- A. 2 weeks
- B. 52 weeks
- C. 44 weeks
- D. 40 weeks
Dose Counting: Calculating Adherence

• Daily Dosing: 7 days a week x number of weeks of treatment (7 x 26 weeks = 182 doses)

• Daily Dosing: 5 days a week x number of weeks of treatment (5 x 39 weeks = 195 doses)

• Bi-weekly Dosing: 2 doses x number of weeks of treatment (2 x 24 weeks = 48 doses)

• Tri-weekly Dosing: 3 doses x number of weeks of treatment (3 x 24 doses)

DOSE COUNTING EXERCISE:
TB INFECTION
TB Infection Dose Counting

• 20 year old Hispanic male
• Household contact to patient that was smear positive
• Culture confirmed M.TB
• He was screened & evaluated:
  • IGRA positive
  • No s/so of active TB disease
  • Normal CXR

How many doses of TBI therapy does the patient need to complete TBI with treatment with INH Bi-weekly?

• A. 60 – 62 doses
• B. 76- 78 doses
• C. 54 doses
• D. 36 doses
Answer:

• Twice weekly INH regimens should consist of at least 76 does
• within 12 months for the 9 month regimen

• AND!! If it is given bi-weekly – SHOULD be given DOT

Dose Counting Exercise: Interruption of Treatment

• 82 yr old woman with history of ovarian cancer & diabetes
• RIPE began: 6/1/2013
• c/o RUQ patient after several weeks on treatment
  • Sclera appeared jaundiced
  • LFTs – were?
  • When would you hold meds or continue?

• Meds held: 6/10/2013
• Meds restarted: 6/27/2013
How long was the interruption?

- A. 12 days
- B. 14 days
- C. 16 days
- D. 18 days

Does the patient need to restart treatment?

- A. Yes
- B. No
YES!

Interruptions in Therapy

Interruptions in therapy are common in the treatment of tuberculosis.

...the earlier the break in therapy and the longer its duration, the more serious the effect and the greater the need to restart the treatment from the beginning.

Continuous treatment is more important in the initial phase of therapy, when there is the highest bacillary population and the chance of developing drug resistance is greatest.

During the continuation phase, the number of bacilli is much smaller and the goal of therapy is to kill the persisting organisms. The duration of the interruption and the bacteriological status of the patient before and after the interruption are also important considerations.

DOSE COUNTING: TB REGIMEN
Dose Counting: TB Regimen

- 32 y/o 132 lb, Hispanic female
- AFB smear and culture positive
- CXR – upper lobe infiltrates
- Medication Orders:
  - Give the following by DOT for 10 days
    - (extra tidbit – what is considered “daily dosing”)
      - INH 300mg
      - Rifmapin 600mg
      - EMB 1200 mg
      - PZA 1500 mg
      - Vit B6 50 mg

TB Regimen Dose Counting

- Then 12 doses bi-weekly
  - INH 900 mg
  - Rifampin 600mg
  - PZA 3000mg
  - EMB 2800 mg
  - Vit B6 100mg

- Then 36 doses bi-weekly
  - INH 900mg
  - Rifamping 600mg
  - Vit B6 – 100mg
Let’s get out our treatment guidelines

- What is patient weight?
- What is dosages for PZA & EMB based on patient weight AND frequency of dosing?
- Anything look out of whack here?

How many weeks of treatment will the patient complete?

- A. 26 weeks
- B. 28 weeks
- C. 30 weeks
- D. 32 weeks
How many weeks of treatment will the patient complete?

- A. 26 weeks
- B. 28 weeks
- C. 30 weeks
- D. 32 weeks

How many months does the number of weeks translate to?

- A. 4 months
- B. 5 months
- C. 6 months
- D. 9 months
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Barbara Martinez – from Houston – for her wonderful slide set!!

THANK YOU