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Implementation of Itraconazole to Reduce Reoccurrence of Tinea Corporis in a Correctional Facility

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Background

- Tinea Corporis is a fungal infection that can occur throughout the body
- Diagnosis is based on skin assessment, which includes evaluation of site, size and symptoms.
- Tinea corporis is treated with either topical or oral medications.
- Before the project Fluconazole 150 mg by mouth was given for 3 days.
- After 10 day reflective practice and review, tinea corporis was found to reoccur with this regimen, which was not supported by literature
- A search of literature revealed that use of Itraconazole 100 mg by mouth once a day for 14 days is recommended to prevent reoccurrence of tinea corporis

Problem

- Reoccurrence of Tinea Corporis was identified as one of the main three predicaments during 10 days of a comprehensive reflective practice
- After providing care for symptomatic patients with tinea corporis, more than half of the patients required secondary treatment for reoccurrence of tinea corporis after using 150 mg of Fluconazole for three days by mouth.
- The increased incidence of reoccurrence of tinea corporis raised concern due to returning visits for secondary treatment for reoccurrence symptomatic tinea corporis and high use of medication, medication cost, and prolonged treatment.

PICOT

P: Incarcerated symptomatic patients between the ages of 19–57 years with Tinea Corporis

I: Implementation of Itraconazole 100 mg PO daily x 2 weeks for Tinea Corporis treatment

C: Fluconazole 150 mg PO x 3 days or Miconazole topical bid to affected area x 7 days

O: Elimination of Tinea Corporis infection and reoccurrence

T–in 4 weeks

Literature Review

- PubMed, Cochrane, Indiana Journal of Dermatology, EBSCO, MEDLINE, and UpToDate were searched. The Literature was organized and revealed a variety of medication regimens that minimize the reoccurrence of tinea corporis.
- Medication regimens included Fluconazole, Terbinafine, and Itraconazole. Specially the benefits of Itraconazole have been compared to other regimens and proven to be most beneficial.
- Itraconazole is ideal for the treatment of cutaneous mycosis and has produced a consistently high cure rate. Current treatment regimens, especially pulse therapy, produce fewer side–effects and greater patient compliance (Sanmano et al, 2003).
- Itraconazole is superior to fluconazole, griseofulvin, and terbinafine, and fluconazole is superior to griseofulvin. The results were calculated in comparison to griseofulvin based on cure rates. Thus, itraconazole was the most effective treatment out of the four treatments tested in the study (Singh et al., 2020).

Tinea Corporis

(Left) Tinea corporis after fluconazole treatment with reoccurrence

(Right) Tinea Corporis after itraconazole treatment at 2 week follow–up

Results

·No signs of reoccurrence of Tinea Corporis, all symptoms subsided at two weeks without returning at the four week follow up assessment.

–Patients showed a decrease in reoccurrence within the two week window of the medication adherence.

–Decrease overall cost for facility by cost of Fluconazole was $1152 and continued to have reoccurrence while itraconazole cost was $942 for treatment

Implications for Practice

- Patient placement consideration with the facility
- General Population vs Isolation placement for patients
- Placement impacts medication adherence, cleanliness, and limited sharing of items
- Access to patients after release from facilities and follow up care

References

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