Preventing Complications of High Dose Steroids for Patients at the Orlando VA Healthcare System

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Problem Statement

• High-dose steroids are the mainstay of therapy for a wide variety of conditions, but have several risks and side effects.

• Prophylaxis can be used to prevent severe complications including PCP pneumonia, GI bleeds, or fractures.

Background:

• Guidelines exist from a multitude of specialties regarding prophylaxis of steroid-induced adverse events for patients on prolonged high-dose steroid therapy

• However, there is a paucity of data regarding the practice patterns among providers who prescribe prolonged high-dose steroids.
Current Condition

• Retrospective chart review among all patients prescribed high dose prednisone from January to December 2022 in the Orlando Veteran Affairs (VA) Healthcare System (prednisone > 20mg daily through a 30 day duration or dose equivalent)

• PCP prophylaxis criteria: Prednisone or dose equivalent of > 20mg with other immunosuppressives or > 30 mg a day for > 30 days

• PPI prophylaxis criteria: patients with previous peptic ulcer disease, heavy smoking, heavy alcohol use, patients > 65 years of age, and patients taking other medications that may increase the risk of PUD

• Bone prophylaxis criteria: Prednisone or dose equivalent of > 30mg for > 30 days
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Current Condition

- 50 patients met inclusion criteria (prescribed prednisone > 20mg daily through a 30 day duration or dose equivalent)

33 patients qualified for PCP prophylaxis

36 patients qualified for PPI prophylaxis

32 qualified for bone prophylaxis
Prescribing Provider Service: PCP Prophylaxis
PCP Cases 2019-2022 at Orlando VAHCS

• 15 PCP cases identified between 2019 to 2022
• 5 cases were prescribed high dose steroids, however these were all by a provider outside the VA
• Among these cases, 2 required hospital admission for PCP and were discharged
• 3 expired: 1 multifactorial respiratory issues, 2 colonization and cancer
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<td>Individualized plan is created based on patient’s conditions</td>
<td>Appropriate prophylaxis is given to eligible patients.</td>
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**SIPOC**

- **Suppliers**: Provider, Pharmacy
- **Inputs**: High-dose steroid prescription
- **Process**: Individualized plan is created based on patient’s conditions
- **Outputs**: Appropriate prophylaxis is given to eligible patients.
- **Customers**: Veteran

**Flow Diagram**

1. **Need for high dose steroid prescription**
2. **Provider reviews indications for prophylaxis**
3. **Individualized plan is created based on patient’s conditions**
4. **Prophylaxis is prescribed**
5. **Adverse events of high dose steroids prescription avoided**
Target Condition/AIM Statement

• Increase the % of patients on appropriate PCP prophylaxis* from 36% to 50% by 1/1/24.

*PCP prophylaxis criteria:
Prednisone or dose equivalent of > 20mg with other immunosuppressives or > 30 mg a day for > 30 days
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Prophylaxis for Patients on High Dose Steroids

- Overwhelming to start a lot of medications
- No alert for high doses
- Difficult to track cumulative dose
- May not know duration of treatment initially
- May not be aware of guidelines, specialty literature may not include
- Overwhelming to provider in 1 limited appointment
- Coordination with outside providers
- Medicolegal liability from risks from meds
- Environment
- System
- Tracking meds from outside VA
- Difficult to track outcomes
- Communication
- What discipline is responsible?

Fishbone Diagram
Follow up / Next steps

• Interview Stakeholders: Spoke with Dermatology, Rheumatology, Pharmacy

• Need to Speak with: Neurology, Gastroenterology, Ophthalmology

• Once we speak with stakeholders, will strategize a process to close knowledge gaps, identify at risk patients, improve communication between services.
References


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