Guideline for Management of Head Injuries and Ground-Level Falls in Elderly Patients on Antiplatelet Therapy

Introduction

Elderly patients on antiplatelet agents like aspirin, Plavix (clopidogrel), all have an increased risk of bleeding complications after head injuries and falls. This guideline provides an evidence-based approach for emergency room (ER) physicians to manage these patients effectively.
Direct thrombin inhibitors, anti Xa inhibitors, and vitamin K antagonists will be addressed in a separate guideline.

Initial Assessment and Triage

Pre-Hospital Care:

- Assess the patient's level of consciousness using the Glasgow Coma Scale (GCS).
- Evaluate for signs of head trauma (lacerations, swelling, hematomas).
- Monitor vital signs (blood pressure, heart rate, oxygen saturation).

Emergency Department (ED) Triage:

- Conduct a thorough history and physical examination.
- Determine the mechanism of injury and assess for loss of consciousness or amnesia.
- Document medication history, focusing on aspirin and clopidogrel.

Diagnostic Workup

Imaging:

- Perform a non-contrast head CT scan for all patients with suspected head injury, regardless of GCS score.
- Consider repeat imaging within 24 hours if the initial scan is negative but clinical suspicion remains high.

Laboratory Tests:

- Obtain a complete blood count (CBC), CMP, Lactate, CK, ETOH levels and coagulation profile (PT, aPTT).
- If available, check platelet function tests to assess the degree of antiplatelet effect.

Chest x-ray, and pelvis x-ray:

- FAST Scan

Management of Antiplatelet Therapy (Aspirin, Plavix, Brilinta)

Criteria for Platelet Transfusion:
Indications:

- Intracranial hemorrhage evident on CT scan.
- Ongoing or significant active bleeding.
- Requirement for urgent neurosurgical intervention.

Dosage:

- Typically, one to two apheresis units of platelets.
- Repeat platelet counts and coagulation parameters.
- Assess clinical status and bleeding response.

Criteria for DDAVP Administration:

Indications:

- Traumatic head injury with significant bleeding.
- Urgent surgical requirement in patients on clopidogrel.
- No response to platelet transfusion in clopidogrel-treated patients.
- Administer DDAVP at 0.3 µg/kg IV over 15-30 minutes.
- Monitor for side effects such as hyponatremia and fluid retention.

Temporary Medication Discontinuation:

- Hold aspirin and clopidogrel in cases of significant intracranial hemorrhage or pending surgical intervention after consulting with a hematologist or neurosurgeon.

Supportive Care and Monitoring

Neurological Monitoring:

- Admit patients with intracranial hemorrhage or significant head injury to a monitored setting.
- Perform frequent neurological checks to detect any deterioration.

Blood Pressure Management:

- Maintain systolic blood pressure below 140 mmHg to reduce the risk of hematoma expansion.

Fall Prevention:

- Address modifiable risk factors for falls (vision correction, medication review, home safety evaluations).

Surgical Intervention

Indications for Surgery:

- Neurosurgical consultation for significant hemorrhage, mass effect, or neurological deterioration.
- Urgent craniotomy for large hematomas or increased intracranial pressure.

Post-Acute Care and Secondary Prevention

Reintroduction of Antiplatelet Therapy:

- Evaluate the risks and benefits of restarting aspirin and clopidogrel post-stabilization based on the patient's cardiovascular risk profile.
- Involve a multidisciplinary team (cardiology, neurology) in decision-making.

Rehabilitation:

- Refer for physical and occupational therapy to aid recovery and prevent future falls.

Version Control Record			
Version	**Date**	**Author / Reviewer**	**Description of Changes**
1	**08/21/2024**	**Paul Wisniewski, D.O.**	**Initial review and update to reflect latest evidence/practice**

References

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This guideline provides ER physicians with clear criteria and protocols for managing elderly patients on aspirin and Plavix who sustain head injuries and falls, ensuring evidence-based care to optimize outcomes.

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- The guidelines are for informational purposes only and are not intended to replace professional medical judgment. They should be used as a reference and adapted to the specific needs of individual patients.
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