Seizures and Epilepsy – Clinical Protocol

Assessment and Recognition

1. As part of the initial assessment, the physician and staff will help identify individuals who have had a seizure or epilepsy, and individuals who are receiving antiepileptic medications for any reason; for example, seizure prophylaxis after a recent stroke or treatment for behavioral symptoms related to dementia.

   a. Seizures and epilepsy are not identical, as seizures may occur in individuals without epilepsy.
   b. Acute seizures may occur in relation to a metabolic disturbance (for example, hypoglycemia, hyponatremia, or hypocalcemia) or an acute central nervous system (CNS) illness such as a stroke or head injury. Epilepsy refers to repeated, unprovoked seizures.

2. In addition, the nurse shall assess and document/report the following:

   a. Vital signs
   b. Neurological assessment
   c. Change in level of consciousness
   d. Any seizure activity in detail (location, duration, severity, recurrence, etc.)
   e. Injury occurring with seizure
   f. Resident’s age and sex
   g. Whether resident has a known seizure disorder or history of actual seizure activity
   h. Date of most recent actual seizure activity, if occurred
   i. How current seizure activity relates to usual patterns
   j. Last blood level of any anticonvulsants being given

3. The staff will identify and report individuals who may be having a seizure.

   a. Examples of signs and symptoms include sudden onset of confusion, aura, visual or auditory hallucinations, difficulty speaking or understanding speech, severe dizziness, loss of consciousness, loss of balance or coordination; sudden numbness, tingling, or weakness of the face or in an arm or leg; or sudden headache, without another identifiable cause. Generalized tonic/clonic activity may or may not be present.
   b. Staff should carefully describe signs and symptoms including the resident’s current level of consciousness, cognitive ability, speech, physical function, abnormal motor activity, tremors, overall physical condition, and a comparison of the resident’s current status to his/her usual (baseline) level of cognition and physical function. They should not just document or report that the individual is “having a seizure” (which is a diagnosis, not a description).
   c. The physician should help the staff distinguish seizure activity from other abnormal movements (for example, myoclonus).

4. If a new or recurrent seizure is identified or suspected, the physician will evaluate the need to transfer the individual to a hospital for additional evaluation and treatment.
Assessment and Recognition (continued)

a. Hospital transfer may not be necessary if the individual has a known seizure disorder or the diagnosis is readily apparent, the seizure can be readily controlled, vital signs are stable, major complications are not present, it is possible to obtain diagnostic tests to rule out other causes, or if hospital transfer is contrary to the wishes of the resident or substitute decision-maker as identified through an advance directive or other care instructions.

b. Not all antiepileptic medications have identifiable ranges of therapeutic concentrations. Laboratory ranges for “therapeutic” levels are not universally applicable; some individuals may have seizures with a “therapeutic” level of medication, while others may have good seizure control, toxicity, or significant side effects with a “therapeutic” or “low” blood level. “Low” blood levels do not by themselves indicate the need to increase medication doses or add medications.

c. Additional doses of antiepileptic medications should not be ordered based on blood levels alone, especially in a seizure-free individual. This may cause additional toxicity without improving seizure control.

d. The physician (or staff, based on a conversation with the physician) should document why additional doses are or are not needed to address “low” blood levels.

5. The staff and physician will monitor for complications related to antiepileptic medications; for example, dizziness, ataxia, somnolence, headache, diplopia, blurred vision, nausea, vomiting, and rash.

a. The staff, consultant pharmacist, and physician will also monitor for drug interactions between antiepileptic medications and other categories of medications; for example, phenytoin and amiodarone, salicylates, warfarin, and trazodone.

6. If seizures are complex, not readily responsive to medication dosage adjustments, or persist despite treatment with up to three antiepileptic medications, the physician should consider a referral to a neurologist.

7. For individuals who have been seizure-free for an extended time, the physician will periodically consider tapering antiepileptic medications especially when their initial use was for idiopathic seizures, an underlying acute medical cause was corrected, or seizure prophylaxis had been initiated in the absence of an identifiable structural cortical lesion.

a. The physician will document clinically valid reasons for maintaining a current dose without attempting any reduction.

Cause Identification

1. For someone with a new or recurrent seizure who is not to be hospitalized, the physician will obtain information and order tests (as needed) to help confirm the diagnosis, rule out other causes of symptoms, clarify the type and causes of the seizure, and identify the nature and severity of any complications.

a. For example, seizures may be caused by central nervous system (CNS) and systemic infections (for example, pneumonia, meningitis, and sepsis), metabolic disorders (for example, hyponatremia, uremia, and hypocalcemia); abrupt discontinuation of antipsychotics, sedatives, anxiolytics, barbiturates, benzodiazepines, and other medications; or medications that can lower the seizure threshold or precipitate seizures (for example, theophylline, antipsychotic medications, tricyclic antidepressants, opioid analgesics, and some antibiotics); and primary or metastatic CNS cancer.

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Cause Identification
(continued)

b. Depending on clinical evidence, examples of potentially relevant tests may include serum creatinine, BUN, electrolytes, glucose, urinalysis, complete blood count (CBC), and platelets; brain CT or MRI scan, echocardiogram, electrocardiogram, liver function tests, toxicology screen, lumbar puncture, serum ammonia, blood alcohol level, or blood levels of current medications.

Treatment/Management

1. The physician will treat underlying causes and risk factors, where possible; for example, correct sodium or calcium imbalances, or taper, stop, or change medications associated with an increased seizure risk.

2. The physician will identify and order appropriate treatment for an acute seizure and a seizure disorder.

   a. Antiepileptic medications should be instituted if there is a reasonable chance that seizures will recur, but they may not be necessary if a single seizure with an identified cause (for example, hyponatremia or an adverse drug reaction) does not indicate an underlying tendency toward recurrent seizures. The physician will explain and/or document when an antiepileptic medication is not indicated immediately.

   b. The physician will select antiepileptic medications based on the category of seizure, existing medication regimen, other risk factors, and (where feasible) discussion with the resident about acceptable level of risk for recurrent seizures.

   c. Antiepileptic medications should be used in the lowest possible dose, consistent with seizure control. Most antiepileptic medications have prominent side effects, including lethargy, dizziness, and ataxia.

Monitoring

1. The staff and physician will monitor the progress of individuals with a new seizure or a seizure disorder, and will modify interventions accordingly.

   a. They should document periodically the absence of seizures, as well as any recurrences.

2. The physician will order antiepileptic medication blood levels periodically, where applicable, and will interpret the results appropriately.

3. Any seizure activity will be monitored by LN staff through priority documentation for at least 72 hours.

References

| MDS (RAPs) | I1aa |
| Survey Tag Numbers | F272; F309; F329; F385; F389; F492; F501 |
| Related Documents | Seizure Management |

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