



Chapter: Hospital Operations
Subject: Medication Variance Reporting and Analysis

Applicability: State Hospitals

Effective Date: October 1, 2010

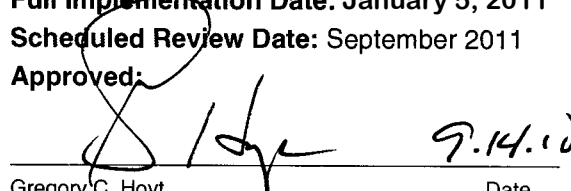
Full Implementation Date: January 5, 2011

Scheduled Review Date: September 2011

Approved:

Reference Materials:

NRI Behavioral Healthcare Performance
Measurement System Implementation Guide
Sample Medication Variance Reporting Data
Presentation

 9.14.10
Date

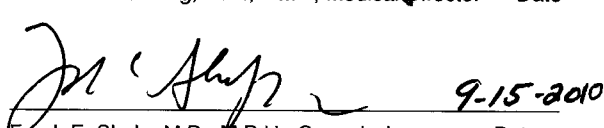
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Attachments:

Attachment A – Medication Variance Report (MVR)
Attachment B – Medication Variance Tracking Form
Attachment C – Medication Variance Worksheet
Attachment D – Intensive Analysis of Medication
Variance

 9.15.10
Date

Donald E. Manning, M.D., MMM, Medical Director

 9-15-2010
Date

Frank E. Shelp, M.D., M.P.H., Commissioner

1. POLICY

- A. DBHDD Hospitals, in keeping with established hospital, state, and federal guidelines, maintain standards of treatment and medication administration by:
- i) Monitoring medication prescribing, transcribing, dispensing, administration, documentation, security, and ordering/procurement in order to:
 - a) Intervene before medication variance episodes occur;
 - b) Track actual variance episodes, potential variance episodes, breakdown points, critical breakdown points, and outcomes; and
 - c) Take appropriate action to correct associated problems/trends with systems and/or personnel.
 - ii) Having actual variance episodes and potential variance episodes tracked and monitored by a team of nurses, physician representative(s), and pharmacy representative(s).
 - iii) Using the **Medication Variance Report (MVR) (Attachment A)** to report medication variance episodes.
 - iv) Using the **Intensive Analysis of Medication Variance (Attachment D)** to further analyze and address:
 - a) An actual variance episode of outcome category E, F, G, H, or I;
 - b) Trends / clusters in the data of actual variance episodes; and
 - c) Trends / clusters in the data of potential variance episodes.

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- v) Submitting data to the National Association of State Mental Health Program Directors Research Institute (NRI) Inc. - Behavioral Healthcare Performance Measurement System (BHPMS). This allows the monitoring/comparison of medication variance rates with national norms, as required by The Joint Commission's (TJC's) ORYX initiative.

2. TERMINOLOGY

- A. The core terminology of this procedure is drawn from best practices examples and from the previous version of this procedure. This terminology is correlated to NRI terminology through the use of the **Medication Variance Worksheet (Attachment C)** and the **Medication Variance Tracking Form (Attachment B)**.
- B. The term "individual" is utilized in this and other DBHDD policies to refer to persons served by DBHDD hospitals (rather than the previously used terms "consumer" or "client").

3. DEFINITIONS

A. Medication Variance

- i) A medication variance is any deviation in medication prescribing, transcribing, dispensing, administration, documentation, drug security, or ordering/procurement by which either:
- The individual receives an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, route of administration, or omission; or the individual does not receive a medication as ordered by a physician; or
 - The individual is not involved, but there is intrinsic potential for the individual to receive an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, or route of administration; or for the individual to not receive a medication as ordered by a physician.

B. Medication Variance Episode

- i) A medication variance episode is defined by the following descriptors:
- Individual's name (if applicable);
 - Date and time of discovery;
 - Description of full chain of events leading to discovery;
 - Identification of the division, location, building, and unit in which the medication variance episode occurred;

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- e) The name and strength of medication(s) incorrectly prescribed, transcribed, dispensed, administered, documented, secured and/or ordered/procured;
 - f) The number of doses of each medication administered or omitted (note: this number is zero for potential medication variance episodes);
 - g) Classification as actual or potential (or neither);
 - h) Breakdown point(s);
 - i) Outcome category;
 - j) Contributing factors; and
 - k) Critical breakdown point.
- ii) One medication variance episode involves at most only one individual.
 - iii) One medication variance episode may involve multiple medications/doses, but only if all other descriptors are identical.
- C. Medication Variance Report (MVR) (Attachment A)
- i) One Medication Variance Report (MVR) is used to describe one medication variance episode.
- D. Actual Medication Variance Episode or more simply: "Actual Variance Episode".
- i) An actual variance episode occurs when there is deviation in prescribing, transcription, dispensing, administration, documentation, security, and/or ordering/procurement by which
 - a) The individual receives an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, route of administration, or omission; or
 - b) The individual does not receive a medication as ordered by a physician.
 - ii) Examples of actual variance episodes include but are not limited to:
 - a) Administration of a medication on a schedule other than ordered;
 - b) Administration of a medication to which the individual has a listed allergy;
 - c) Ordering and administration of a medication to which the individual has a listed allergy;
 - d) Administration of a medication that requires the monitoring and recording of blood pressure prior to administration, and that information is not collected before the medication is administered; and
 - e) A medication dose is omitted.
 - According to the American Health Information Management Association (AHIMA), the Medication Administration Record (MAR) should be left blank and a Medication Variance Report completed if: 1) An omission is older than 24 hours; 2) The omission is under 24 hours and the nurse does not have a clear recollection of administration; or

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3) There is no supporting documentation to indicate that the dose was given (e. g. other facility worksheets or forms which indicate that the dose was given).

E. Potential Medication Variance Episode (or more simply: "Potential Variance Episode")

- i) A potential variance episode does not directly involve the individual, but exhibits the intrinsic potential to involve the individual (that is, to lead to an actual variance episode). A potential variance episode occurs when there is deviation in prescribing, transcription, dispensing, administration, documentation, security, and/or ordering/ procurement, which exhibits the intrinsic potential:
 - a) For the individual to receive an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, route of administration or omission; or
 - b) For the individual to not receive a medication as ordered by a physician.
- ii) Examples of potential variance episodes include but are not limited to:
 - a) The individual is prescribed an incorrect drug dose, dosage form, quantity, route, concentration, rate of administration, or instructions for use of a drug product, and that medication is not administered as such to the individual;
 - b) The individual is ordered a medication to which the individual has a listed allergy, and that medication is not administered to the individual;
 - c) Pharmacy delivers the wrong drug, drug dose or concentration, dosage form, label (medication or individual's name) or quantity to the point of intended use and such medication is not administered to the individual;
 - d) A procurement issue leads to potentially missed doses (doses are not missed);
 - e) Information transcribed onto the MAR does not match the physician's order, but the MAR is corrected before the individual receives the associated medication.
 - f) An incorrect medication is removed from the night nursing cabinet, but that medication is not administered to the individual.

F. Neither an Actual Variance Episode nor a Potential Variance Episode

- i) Examples (Note that these examples do not exhibit intrinsic potential to lead to an actual variance episode):
 - a) Failure to have signed informed consent in place;
 - b) Failure to have involuntary medication administration form in place;
 - c) United States Drug Enforcement Agency Controlled Medication: sign out error; and

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d) United States Drug Enforcement Agency Controlled Medication: failure to document medication count.

ii) Such events should be tracked by the facility, but not as medication variance episodes.

G. Breakdown Point

i) A breakdown point is a single point in the medication process that is directly involved in a medication variance episode.

ii) Breakdown point categories include medication prescribing, transcribing, dispensing, administration, documentation, security, and ordering/procurement.

iii) Examples

a) A breakdown point in prescribing occurs when a physician orders a medication to which the individual has a listed allergy.

b) A breakdown point in administration occurs when a nurse administers a medication to which the individual has a listed allergy.

iv) Often, there are multiple breakdown points per medication variance episode. So often, there are multiple breakdown points associated with one Medication Variance Report.

H. Critical Breakdown Point

i) The critical breakdown point is the single breakdown point of a medication variance episode, without which the episode would most likely have not occurred. The critical breakdown point can be thought of as the *root cause* of the medication variance episode.

ii) For a medication variance episode involving a sequence of breakdown points, the critical breakdown point is usually the first breakdown point in the sequence.

iii) There is only one critical breakdown point per medication variance episode. So there is only one critical breakdown point per Medication Variance Report.

I. Outcomes

i) The term outcome describes the individual outcome associated with a medication variance episode.

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- ii) There is only one outcome associated with a medication variance episode, so there is only one outcome per Medication Variance Report.
- iii) Outcome Categories
 - a) Category A: A potential variance episode occurred (did not directly involve individual).
 - Note: An omission of administration does directly involve the individual.
 - b) Category B: An actual variance episode occurred but caused no harm.
 - c) Category C: An actual variance episode occurred, which required only monitoring and no intervention to confirm that no harm resulted.
 - d) Category D: An actual variance episode occurred, which required intervention to prevent harm, and no harm resulted.
 - e) Category E: An actual variance episode occurred, which required intervention and may have contributed to or resulted in temporary harm.
 - f) Category F: An actual variance episode occurred, which may have contributed to or resulted in temporary harm to the individual and required hospitalization.
 - g) Category G: An actual variance episode occurred, which may have contributed to or resulted in permanent harm to the individual.
 - h) Category H: An actual variance episode occurred, which required intervention to sustain life.
 - i) Category I: An actual variance episode occurred, which may have contributed to or resulted in individual's death.

J. Intensive Analysis of Medication Variance (Attachment D)

- i) The Intensive Analysis of Medication Variance form is used to:
 - a) Further assess an actual variance episode of severity grade E, F G, H, or I;
 - b) Assess trends / clusters in the data of actual variance episodes;
 - c) Assess trends / clusters in the data of potential variances episodes;
 - d) Describe remediation effort(s) in terms of an action plan; and
 - e) Rate the success of the action plan.

K. Medication Variance Worksheet (or more simply "Worksheet") (Attachment C)

- i) The Worksheet is used monthly to make counts of:
 - a) Actual variance episodes;
 - b) Potential variance episodes;
 - c) Breakdown points; and
 - d) Critical breakdown points.
- ii) The Worksheet is also used to make monthly counts according to the following NRI terminology, defined in Section 7:

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- a) Number of (NRI) medication errors;
 - b) Number of distinct individuals experiencing (NRI) medication errors;
 - c) Number of (NRI) medication errors with an (NRI) severity level of “minimal”;
 - d) Number of (NRI) medication errors associated with an (NRI) severity level of “short term”;
 - e) Number of (NRI) medication errors associated with an (NRI) severity level of “permanent”;
 - f) Number of (NRI) treatment variances;
 - g) Total number of (NRI) medication errors of source = prescribing;
 - h) Total number of (NRI) medication errors of source = dispensing;
 - i) Total number of (NRI) medication errors of source = administration; and
 - j) Total number of (NRI) medication errors of source = complex.
- iii) An electronic Worksheet may be created and used instead of the paper Worksheet, provided that a paper copy of the completed electronic Worksheet is generated and filed for every reporting period (generally every month).

L. Medication Variance Tracking Form (or more simply, “Tracking Form”) **(Attachment B)**

- i) The Tracking Form is used to track monthly counts of the following:
 - a) Actual variance episodes;
 - b) Potential variance episodes;
 - c) Outcomes;
 - d) Breakdown points;
 - There will often be more breakdown points than there are critical breakdown points. (A medication variance episode may be defined by multiple breakdown points, but by only one critical breakdown point);
 - e) Critical breakdown points; and
 - f) Intensive analyses.
- ii) Total critical breakdown points = total medication variance episodes = total number of outcomes.
- iii) The Tracking Form is also used to track monthly counts according to NRI terminology, defined in Section 7:
 - a) Number of (NRI) medication errors;
 - b) Number of distinct individuals experiencing (NRI) medication errors;
 - c) Number of (NRI) medication errors with an (NRI) severity level of “minimal”;
 - d) Number of (NRI) medication errors associated with an (NRI) severity level of “short term”;
 - e) Number of (NRI) medication errors associated with an (NRI) severity level of “permanent”;

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- f) Number of (NRI) treatment variances;
 - g) Ratio of: the total number of distinct individual experiencing NRI medication errors / total number of NRI medication errors. (One individual may be associated with more than one NRI Medication error);
 - h) Ratio of: the total number of NRI treatment variances / total number of NRI medication errors;
 - i) Total number of (NRI) medication errors of source = prescribing;
 - j) Total number of (NRI) medication errors of source = dispensing;
 - k) Total number of (NRI) medication errors of source = administration; and
 - l) Total number of (NRI) medication errors of source = complex.
- iv) An electronic Tracking Form may be created and used instead of the paper Tracking Form, provided that a paper copy of the completed electronic Tracking Form is generated and filed for every reporting period (generally every month).
- v) The Tracking Form is completed by the Medication Surveillance Committee. It is maintained by the Medication Surveillance Committee or the Clinical Director.

M. Medication Surveillance Committee (MSC)

- i) The MSC is made up of nurses, physician representative(s), and pharmacy representative(s).
- ii) The MSC meets the first week of each month to review and complete all of the MVRs submitted for review in the past month.
- iii) The MSC tabulates and tracks data as described under Section 5.

4. PROCEDURES

A. An MVR is completed whenever a medication variance is discovered.

- i) Section 1 of the MVR (General Information) is completed by the discovering practitioner (nurse, pharmacist, or physician), or by the practitioner to whom the variance is reported. The report is then forwarded for completion of Section 2.
- ii) Section 2 of the MVR (Investigation/Analysis) is completed by the Clinical Supervisor (or Clinical Supervisor Designee) of the discipline from which the variance most likely originated. The report is then forwarded to the MSC.
- iii) Section 3 of the MVR (Review/Analysis) is completed by the MSC.

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- B. The MSC is called to order the first week of each month to review all MVRs submitted in the previous month.
- i) The MSC uses the Worksheet to perform monthly data counts.
 - ii) The MSC uses the Tracking Form to track monthly data counts.
 - iii) The MSC completes an Intensive Analysis of Medication Variance to further analyze:
 - a) Any medication variance episode of outcome E, F, G, H, or I; or
 - b) Any trend or cluster observed in the data of actual variance episodes or potential variance episodes.
- C. Suggested process for the MSC review of MVRs:
- i) Collect all MVRs submitted during the previous month.
 - ii) Review each MVR for completeness. If additional information is required, return to sender with explanation.
 - iii) Review each MVR for correctness. For instance, If an actual variance episode is marked as a potential medication episode, make corrections, explain corrections on the MVR, and initial corrections
 - iv) As the MVR is being reviewed:
 - a) Capture MVR data on the Worksheet:
 - Insert tally mark in the proper count section for the variance episode identifier;
 - Insert tally mark in the proper count section for outcome category; and
 - Insert tally mark(s) in the proper section for breakdown point(s).
 - b) Complete MVR Section 3:
 - Initiate Intensive Analysis of Medication Variance for reports with outcome category = E, F, G, H, or I;
 - Indicate the critical breakdown point and critical breakdown point subcategory;
 - (i) Insert tally mark in the proper section of the worksheet for critical breakdown point.
 - For actual variance episodes only:
 - (i) Indicate the type of NRI error (Complex, Administration Only, Prescribing Only, or Dispensing Only).
 - (ii) Insert tally mark in the proper section of the Worksheet for NRI error type
 - Capture Signature and Date of the Medication Surveillance Committee Chairperson.

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- v) Total all tally counts made so far on the worksheet.
- vi) Separate out all MVR forms concerning actual variance episodes.
 - Select **only** those MVRs concerning actual variance episodes to complete the NRI section of the worksheet.
 - (i) Count the total number of distinct individuals (no individual counted twice) for all MVRs involving actual variance episodes, and enter the total value in the corresponding cell of the Worksheet.
 - (ii) Count the total number of doses (administered or omitted) for all MVRs involving actual variance episodes and enter the total value in the corresponding cell of the Worksheet.
 - (iii) From the Worksheet, count the total number of outcomes = (B or C), (D, E, or F), and (G, H, or I) and enter the total values into the corresponding NRI section of the Worksheet.
- vii) Transcribe Worksheet totals to the Tracking Form.

- D. All information collected by the Medication Surveillance Committee (MVRs and associated reports/forms) is maintained by the Medication Surveillance Committee, the Chief Medical Officer, or by Designee of the Chief Medical Officer.
- E. Additional processes (creating quarterly reports, graphs, and reporting to NRI, etc.) is the responsibility of the Medication Surveillance Committee, the Chief Medical Officer, or Designee of the Chief Medical Officer.

5. THE NON-PUNITIVE REPORTING ENVIRONMENT

- A. Medication variance episodes are captured with MVRs in an effort to establish trends and patterns, to learn from the analysis of those trends and patterns, and to prevent reoccurrence, thus improving individual safety.
- B. There must be a non-punitive, supporting environment for all staff to report medication variance episodes. The environment must encourage, and not in any way discourage the reporting of medication variance episodes.
- C. The Clinical Director or Designee of the Clinical Director is responsible for establishing and maintaining a non-punitive environment, and for educating staff regarding non-punitive reporting.
- D. Any actions taken to punish staff, instill fear, or otherwise discourage the reporting of medication variance episodes are to be reported to the Clinical Director or to the Designee of the Clinical Director.

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- E. The non-punitive reporting environment does not apply where there is intent to cause individual harm.

6. REPORTING TO NRI

- A. Only data associated with MVRs = actual variance episode is used for reporting to NRI. Data associated with MVR(s) = potential variance episode, or MVR(s) = neither actual nor potential variance episode, is not reported to NRI.
- B. This section describes current NRI terminology and how it correlates to the main (MVR) terminology of this procedure. If NRI amends any of the below terminology in the future, this procedure will need to be updated accordingly.
- i) Medication Error: a variance in the desired treatment or outcome of medication usage due to the individual receiving an incorrect drug, drug dose, dosage form, quantity, route, concentration, or rate of admission, or the individual not receiving a medication as ordered by the physician.
 - a) One medication error is synonymous with one (MVR) actual variance episode.
 - ii) Distinct Individual: Distinct individual means for example that if there are 4 actual variance episodes (MVRs) associated with 1 individual during 1 month, then the individual is counted only once. That is, there is only one distinct individual associated with the 4 MVRs.
 - iii) Treatment Variance: the number of deviations from the intended treatment course for individuals.
 - a) An NRI treatment variance is synonymous with the (MVR) total number of doses administered or missed for an actual variance episode.
 - iv) Root Cause:
 - a) An NRI root cause is synonymous with the (MVR) critical breakdown point of an actual variance episode.
 - v) Medication Error Event: When a series of treatment alterations arise from one root cause, such alterations are considered repetitive in nature and are classified as one “error event”.
 - a) An NRI medication error event is synonymous with an (MVR) actual variance episode in which there are multiple medications listed.
 - vi) Event Begin Date: reflects the date on which the event actually occurred.
 - a) An NRI event begin date is synonymous with the date of first dose or omission of an (MVR) actual variance episode.

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vii) Event End Date:

- a) An NRI event end date is synonymous with the date that an outcome is fully known for an (MVR) actual variance episode .

viii) Severity level “minimal” describes an NRI medication error where an individual experienced no or minimal adverse effects, and had no treatment or interventions other than monitoring or observation required.

- a) NRI severity level “minimal” correlates to (MVR) outcome category = B or C.

ix) Severity level “short term” describes an NRI medication error where an individual experienced short-term, reversible adverse effects and treatment(s) and /or interventions in addition to the monitoring or observation required.

- a) NRI severity level “short term” correlates to (MVR) outcome category = D, E, or F.

x) Severity level “permanent” describes an NRI medication error in which the individual experiences life-threatening and/or permanent adverse effects.

- a) NRI severity level “permanent” correlates to (MVR) outcome category = G, H, or I.

xi) Prescribing Error: occurs at the time the medication is prescribed by a physician or other legitimate prescriber. There may be an incorrect drug selection, dosing, form, route, quantity, concentration, rate of administration, or incorrect use of a drug product.

xii) Dispensing Error: occurs at the time the drug is formulated and delivered for the intended use.

xiii) Administration Error: occurs at the individual level and is a deviation from what has been prescribed such as missed doses.

xiv) Complex Error: a combination of two or more NRI errors of different types: prescribing, dispensing, and/or administration.

C. The NRI BHPMS performance measure for medication errors is defined as an error that occurs when an individual receives an incorrect drug, drug dose, dosage form, quantity, route, concentration, rate of administration, or omission. The performance measure is limited to those errors that reach the individual either in the form of a missed medication treatment or an incorrect medication treatment.

i) The first half of the report involves

- a) Raw counts of medication errors: the number of distinct individuals that experience a medication error and the total number of medication errors

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are provided. The number of medication errors may be larger than the number of distinct individuals meaning that one individual may have had more than one medication error event during the given reporting period.

- b) A count of NRI medication errors for each of the three NRI severity levels: minimal, short term, and permanent.
- ii) The second half of the report focuses on the treatment variances represented in the medication errors.
 - a) First the total number of treatment variances describes the total number of deviations from the intended treatment course for individuals. An individual may have only one medication error but multiple treatment variances. For example, an individual prescribed a medication 3 times per day who did not have the medication administered for 2 days would have a total of 6 treatment variances.
 - One NRI treatment variance correlates to one of dose missed or administered in an MVR actual variance episode.
 - If an MVR actual variance episode involves 6 doses, then those doses correlate to 6 NRI treatment variances.
 - b) Next, the number of treatment variances per medication error is provided. This number illustrates the average number of treatment variances across medication errors for a facility.
 - This NRI ratio correlates to the (monthly) total of (MVR) actual variance episode doses administered or omitted / the (monthly) total of (MVR) actual variance episodes.
 - c) Lastly the treatment variances are counted per error type: prescribing, dispensing, administration, and/or complex.

7. INDIVIDUAL NOTIFICATION OF ADVERSE CONSEQUENCES

- A. For Actual Variance Episodes, Section 2.B.i.c. of the MVR asks if the individual experienced harm as a result of the medication variance episode. If the answer is yes, then the next question is whether or not the individual has been notified of associated adverse consequences that the individual experienced.
- B. If an individual experiences adverse consequence(s) as a result of a medication variance episode, **the physician** notifies the individual and, when appropriate, their families/significant other(s) after consultation with the Clinical Director or Clinical Director's Designee. If the individual is competent to give consent and does so, the family/significant other(s) is notified. If the individual is not so competent or if decision-making capacity is severely compromised due to the resultant medical condition, the procedure for family or emergency notification is utilized for notification purposes. This information for emergency notification is found on the admission summary/face sheet in the front of the medical record. This notification is documented in the medical record.

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8. REFERENCE MATERIALS

A. Document labeled as ***NRI Medication Errors Indicators***

Mojarrad, M. Medication Indicators: Behavioral Health Performance Measurement System. 2008. National Association of State Health Program Directors Research Institute, Inc. (NRI).

B. Document labeled as ***NRI Med Errors Definitions***

EXCERPT from: National Association of State Mental Health Program Directors Research Institute, Inc. (NRI). Behavioral Healthcare Performance Measurement System Implementation Guide, Version 5.1 pp DD19-DD22. Sept. 15, 2009.

Policy: Medication Variance Reporting and Analysis**MEDICATION VARIANCE REPORT (MVR)****Identification****SECTION 1. GENERAL INFORMATION:** (completed by discovering practitioner, or practitioner to whom the variance is reported).

- A. Location: Division/Bldg/Unit/Living Area _____
- B. Date and Time of Discovery: _____
- C. Describe chain of events leading to discovery. List medications, med strengths, and doses if known. PLEASE PRINT CLEARLY.

- D. Signature/Title: person completing section 1 _____ Today's Date (MM/DD/YY) _____

SECTION 2. INVESTIGATION/ANALYSIS: (by Clinical Supervisor of discipline from which the variance most likely originated, or designee).

- A. Involved Medication(s): (Name = Depakote, Depakote ER, etc), (Dosage Form = tablet, injection, cream, patch, eye drops, ear drops etc). Number of doses = number of doses administered or omitted (number of doses = 0 for potential variances).
- i. Name _____ Dosage Form: _____ Strength _____ Number of Doses _____
- ii. Name _____ Dosage Form: _____ Strength _____ Number of Doses _____
- iii. Name _____ Dosage Form: _____ Strength _____ Number of Doses _____
- iv. Name _____ Dosage Form: _____ Strength _____ Number of Doses _____
- v. **Total number of doses administered/omitted for all involved medications:** _____
- B. Type of Variance Episode: Check the type of episode described by this report.
- i. **Actual variance episode:** An actual variance episode occurs when there is deviation in prescribing, transcription, dispensing, administration, documentation, security, and/or ordering/procurement by which the individual receives an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, route of administration or omission; or the individual does not receive a medication as ordered by a physician.
- a. Date and Time of First Dose/Omission (MM/DD/YY): _____ Time: _____
- b. Date and Time of Last Dose/Omission (MM/DD/YY): _____ Time: _____
- c. Did the individual experience harm as a result of this medication variance episode? YES NO
- i. If yes, has the physician notified the individual (and family if appropriate) of adverse consequence(s) experienced by the individual AND has this been documented in the individual's chart? YES NO
- ii. **Potential variance episode:** A potential variance episode does not directly involve the individual, but exhibits the intrinsic potential to involve the individual (that is, to lead to an actual variance episode). A potential variance episode occurs when there is deviation in prescribing, transcription, dispensing, administration, documentation, security, and/or ordering/ procurement, which exhibits the intrinsic potential for the individual to receive an incorrect drug, drug dose, dosage form, quantity, concentration, rate of administration, route of administration or omission; or to not receive a medication as ordered by a physician.
- iii. **Neither actual nor potential variance episode:** This describes an occurrence that does not involve the individual, and has no intrinsic potential to lead to an actual medication variance. Examples include: narcotic sign out error, narcotic count not documented, failure to have informed consent signed. **If this is the case, skip to section 2F.**
- C. **Indicate the type of outcome associated with this medication variance episode**
- Category A: A potential variance episode occurred (did not reach the individual) (an omission of administration does reach the individual).
- Category B: An actual variance episode occurred but caused no harm.
- Category C: An actual variance episode occurred, which required only monitoring and no intervention to confirm no harm resulted.

- Category D: An actual variance episode occurred, which required intervention to prevent harm, and no harm resulted.
- Category E: An actual variance episode occurred, which required intervention and may have contributed to or resulted in temporary harm.
- Category F: An actual variance episode occurred, which may have contributed to or resulted in temporary harm to the individual and required hospitalization.
- Category G: An actual variance episode occurred, which may have contributed to or resulted in permanent harm to the individual.
- Category H: An actual variance episode occurred, which required intervention to sustain life.
- Category I: An actual variance episode occurred, which may have contributed to or resulted in individual death.

i. Date that the full outcome was first realized: (MM/DD/YY) _____

D. Breakdown Points: Categories and Subcategories. Please Identify **ALL** that apply to this report:

<p><u>PRESCRIBING</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Wrong Individual <input type="checkbox"/> Wrong Drug <input type="checkbox"/> Wrong Concentration <input type="checkbox"/> Wrong Dose <input type="checkbox"/> Wrong Dosage Form <input type="checkbox"/> Wrong Route of Administration <input type="checkbox"/> Wrong Time/Frequency <input type="checkbox"/> Wrong/Lack of Monitoring <input type="checkbox"/> Duplicate Drug/Ingredient <input type="checkbox"/> Unclear/ Illegible Handwriting <input type="checkbox"/> Drug listed as ADR (eg allergy) <input type="checkbox"/> Omission <input type="checkbox"/> Outside Rx Guidelines <input type="checkbox"/> Wrong drug quantity selection <input type="checkbox"/> Wrong instructions for use of drug <input type="checkbox"/> Non-formulary form not completed. <input type="checkbox"/> Other: _____ <p><u>TRANSCRIBING</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Wrong Individual's MAR <input type="checkbox"/> Omission of Transcription <input type="checkbox"/> Incorrect Transcription <ul style="list-style-type: none"> <input type="checkbox"/> Wrong Drug <input type="checkbox"/> Wrong Dose <input type="checkbox"/> Wrong Route of Admin. <input type="checkbox"/> Wrong Time/Frequency <input type="checkbox"/> Wrong Start/Stop Time <input type="checkbox"/> Wrong Monitoring Instructions <input type="checkbox"/> Duplicate Instructions <input type="checkbox"/> Illegible Handwriting <input type="checkbox"/> Other: _____ 	<p><u>DISPENSING/STORAGE</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Wrong Individual <input type="checkbox"/> Wrong Drug <input type="checkbox"/> Wrong Concentration <input type="checkbox"/> Wrong Dose <input type="checkbox"/> Wrong Dosage Form <input type="checkbox"/> Wrong Route of Administration <input type="checkbox"/> Wrong Time/Frequency <input type="checkbox"/> Drug/Drug Interaction <input type="checkbox"/> Duplicate Drug/Ingredient <input type="checkbox"/> Expired Drug <input type="checkbox"/> Wrong Quantity Dispensed <input type="checkbox"/> Incorrect Label (e.g. Drug name/strength) <input type="checkbox"/> Medication unavailable: <ul style="list-style-type: none"> <input type="checkbox"/> From Night Nursing Cabinet <input type="checkbox"/> From Emergency Kit <input type="checkbox"/> Other: _____ <p><u>MEDICATION SECURITY</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Found Medication <ul style="list-style-type: none"> <input type="checkbox"/> Facility Origin <input type="checkbox"/> Employee Origin <input type="checkbox"/> Visitor Origin (without Drs order to use home meds) <input type="checkbox"/> Unknown Origin <input type="checkbox"/> Other: _____ 	<p><u>ADMINISTRATION</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Wrong Individual/ Wrong Individual <input type="checkbox"/> Wrong Medication Administered <input type="checkbox"/> Wrong Dose <input type="checkbox"/> Extra Dose <input type="checkbox"/> Wrong Dosage Form <input type="checkbox"/> Wrong Route of Administration <input type="checkbox"/> IV Flow/concentration incorrect <input type="checkbox"/> Wrong time/frequency of administration <input type="checkbox"/> Expired drug <input type="checkbox"/> Medication given without physician order <input type="checkbox"/> Medication given after discontinued <input type="checkbox"/> Medication administered with allergy listed <input type="checkbox"/> Other: _____ <p><u>DOCUMENTATION</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Failure to Initial MAR <input type="checkbox"/> Signature omitted from MAR <input type="checkbox"/> Not Charted as Given <input type="checkbox"/> Charted on Wrong MAR <input type="checkbox"/> No data (VS, glucose) for med. admin. <input type="checkbox"/> Failure of 2nd nurse insulin check/initials <input type="checkbox"/> Other: _____ <p><u>ORDERING / PROCUREMENT</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Medication Not Ordered <ul style="list-style-type: none"> <input type="checkbox"/> From Pharmacy <input type="checkbox"/> From Supplier <input type="checkbox"/> Medication Unavailable <ul style="list-style-type: none"> <input type="checkbox"/> From Pharmacy <input type="checkbox"/> From Supplier <input type="checkbox"/> Other: _____
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E. Contributing Factors (Select ALL that apply)

Communication Issues	Dispensing/Storage/ Administration Systems	Environmental Factors	Human Factors	Nursing Completes This Section For any MVR involving nursing
<ul style="list-style-type: none"> <input type="checkbox"/> Verbal/written miscommunication <input type="checkbox"/> Handwriting <input type="checkbox"/> Abbreviations <input type="checkbox"/> Non-metric measure <input type="checkbox"/> 'Trailing' zero <input type="checkbox"/> No "leading" zero <input type="checkbox"/> Misplaced decimal point <input type="checkbox"/> lab values/allergy/other information <i>not available</i> <input type="checkbox"/> Drug information <i>not available</i> <input type="checkbox"/> Other: _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> System checks lacking <input type="checkbox"/> Side-by-side storage <input type="checkbox"/> Lack of standard practices <input type="checkbox"/> Drug device use and monitoring (equipment malfunction, etc) <input type="checkbox"/> Improper use of night nursing cabinet. <input type="checkbox"/> Other: _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Lighting <input type="checkbox"/> Noise level <input type="checkbox"/> Distractions <input type="checkbox"/> Interruptions <input type="checkbox"/> Other: _____ <p style="text-align: center;">Product Issues</p> <ul style="list-style-type: none"> <input type="checkbox"/> Label <input type="checkbox"/> Look-alike packaging <input type="checkbox"/> Look/sound alike drug names <input type="checkbox"/> Prefix/Suffix Issues <input type="checkbox"/> Other: _____ 	<ul style="list-style-type: none"> <input type="checkbox"/> Knowledge deficit <input type="checkbox"/> Performance deficit <input type="checkbox"/> Staffing Issues <input type="checkbox"/> Miscalculation <input type="checkbox"/> Extended shifts <input type="checkbox"/> Stress <input type="checkbox"/> Fatigue <input type="checkbox"/> Confrontation <input type="checkbox"/> Intimidation <input type="checkbox"/> Failure to follow procedure <input type="checkbox"/> Computer entry <input type="checkbox"/> Other: _____ 	<p>Was the nurse:</p> <ul style="list-style-type: none"> <input type="checkbox"/> New employee (< 6 months) <input type="checkbox"/> Agency <input type="checkbox"/> Overtime <input type="checkbox"/> Hourly <input type="checkbox"/> Weekend <p>Nurse to Individual Ratio: _____</p> <p>Name of Supervisor Notified: _____</p> <p>Date Notified: _____</p> <p>Name of Physician Notified: _____</p> <p>Date Notified: _____</p>

Other contributing factors not classified above: _____

F. **Corrective Actions** (Select ALL that apply). Attach separate sheet if needed.)

- Corrections made
- Teaching/Coaching
- Performance Monitoring
- Other _____

Describe measures taken to prevent such medication variance episodes from occurring in the future:

G. **Individual(s) completing Section 2.**

i. Signature/Title _____ Date (MM/DD/YY) _____

ii. Signature/Title _____ Date (MM/DD/YY) _____

SECTION 3. REVIEW/ANALYSIS: (completed by the Medication Surveillance Committee)

A. Is the outcome category E, F, G, H or I? No Yes → Intensive Analysis initiated? Yes: Date of initiation _____

B. Which of the following is the critical breakdown point category associated with this report?

- Prescribing
- Transcribing
- Dispensing/Storage
- Medication Security
- Administration
- Documentation
- Ordering/Procurement

a. Identify the critical breakdown point subcategory _____

C. If this is an Actual Variance Episode: specify the type of NRI Error Associated:

- COMPLEX
- ADMINISTRATION ONLY
- PRESCRIBING ONLY
- DISPENSING ONLY

D. Signature of Medication Surveillance Committee Chairperson

Signature _____ Date (MM/DD/YY) _____

MEDICATION VARIANCE TRACKING FORM

Monthly MVR Tracking: Total Critical Breakdown Points = Total Variance Episodes = Total Outcomes

Month/Year (MM/YY) →								TOTALS
Actual Medication Variance Episodes								
Potential Medication Variance Episodes								
Total Medication Variance Episodes								
Outcome A								
Outcome B								
Outcome C								
Outcome D								
Outcome E								
Outcome F								
Outcome G								
Outcome H								
Outcome I								
Total Number of Outcomes								
Breakdown Point = Prescribing								
Breakdown Point = Transcribing								
Breakdown Point = Dispensing								
Breakdown Point = Administration								
Breakdown Point = Documentation								
Breakdown Point = Drug Security								
Breakdown Point = Ordering/Procurement								
Total Breakdown Points								
Critical Breakdown Point = Prescribing								
Critical Breakdown Point = Transcribing								
Critical Breakdown Point = Dispensing								
Critical Breakdown Point = Administration								
Critical Breakdown Point = Documentation								
Critical Breakdown Point = Drug Security								
Critical Breakdown Point = Ordering/Procur.								
Total Critical Breakdown Points								
Total Analyses of MVRs with Outcome E-I								

MEDICATION VARIANCE TRACKING FORM

Total Intensive Analyses of Potential Variances							
Total Intensive Analyses of Actual Variances							
Total Outcome and Variance Analyses							

NRI Terminology

Month/Year (MM/YY) →								Totals
A	Total number of MVR Error Reports with classification as Actual Variance Episode (= total number of NRI medication errors)							
B	Total number of <u>distinct</u> individuals experiencing actual variance episodes (do not double count an individual for a month, even if multiple actual variance episodes occurred for that individual in one month) (= total number of distinct individuals experiencing NRI medication errors)							
D	Total number of MVR actual variance episodes associated with an MVR outcome of B-C (=total number of NRI medication errors with an NRI severity level of "minimal")							
E	Total number of MVR actual variance episodes associated with an MVR Outcome of D-F (= total number of NRI medication errors with a severity level of "short term")							
F	Total number of MVR actual variance episodes associated with an MVR outcome of G-I (= total number of NRI medication errors with an NRI severity level of "permanent")							
G	Total number of MVR doses associated with actual medication variance episodes (= total number of NRI medication variances)							
H	Ratio of B/A = ratio of the total number of distinct individuals experiencing NRI medication errors / total number of NRI medication errors							
I	Ratio of G/A (=ratio of number of NRI treatment variances / total number of NRI medication errors)							
J	Total number of A = only NRI ADMINISTRATION ERRORS							
K	Total number of A = only NRI PRESCRIBING ERRORS							
L	Total number of A = only NRI DISPENSING ERRORS							
M	Total number of A = only NRI DISPENSING ERRORS							

Georgia Department of Behavioral Health and Developmental Disabilities
Policy: Medication Variance Reporting and Analysis

Medication Variance Worksheet

For MVRs Received During:

(MM/YY) _____

MVR Episode Identifier	Actual Variance Episodes	Potential Variance Episodes
Counts		
Totals		

Outcome Categories	A	B	C	D	E	F	G	H	I
Counts									
Totals									

Breakdown Points	Prescribing	Transcribing	Dispensing	Administration	Documentation	Drug Security	Pharmacy Ordering/ Procurement
Counts							
Totals							

CRITICAL Breakdown Points	Prescribing	Transcribing	Dispensing	Administration	Documentation	Drug Security	Pharmacy Ordering/ Procurement
Counts							
Totals							

Policy: Medication Variance Reporting and Analysis

For MVRs Received During:

Medication Variance Worksheet

(MM/YY) _____

For NRI: Separate out all MVRs that describe an ACTUAL VARIANCE EPISODES and USE ONLY THOSE MVRs for counts below.

Category	Number of Distinct Individuals with MVR = Actual Variance (no individual counted twice)	Number of Doses associated with MVR Actual Variance Episodes	Total Number of MVR outcomes = B, or C	Total Number of MVR outcomes = D, E, or F	Total Number of MVR outcomes = G, H, or I	Number of MVR s with breakdowns = (NRI) ADMINISTRATION ONLY	Number of MVRs with breakdowns = (NRI) PRESCRIBING ONLY	Number of MVRs with breakdowns = (NRI) DISPENSING ONLY	Number of MVRs with breakdowns = any combination of (NRI) Admin/Prescribing/Disp. COMPLEX
Counts									
Totals									

Policy: Medication Variance Reporting and Analysis
INTENSIVE ANALYSIS OF MEDICATION VARIANCE

Identification

1. **The purpose of this report is to identify and improve system issues associated with actual or potential medication variances.**
2. **This form is completed by the Medication Surveillance Committee.**
3. **This report involves (check one):**
 - an actual variance of outcome category E, F, G, H, or I (circle one)
Individual identification (Name and living unit):
 - a cluster or monthly trend of actual variances with common breakdown points and/or common contributing issues.
 - a cluster or monthly trend of potential variances with common breakdowns points and/or common contributing issues.
4. **Description of events:**
 - A. For actual variance episodes leading to an outcome category of E, F, G, H, or I: give detail about the serious event that prompted your attention. For example: "On 12/2/09, the individual received a significantly high dose of (medication) resulting in his/her hospitalization."
 - B. For trends/clusters observed with actual variance episodes: include the data set that directed your attention to the problem. For example: "Tracking Form data for October, November, and December 2009 revealed an escalating trend in the number of actual variance episodes of breakdown point = prescribing, and further analysis revealed all had breakdown subcategory = unclear/illegible handwriting."
 - C. For trends/clusters observed with potential variance episodes: include the data set that directed your attention to the problem. For example: "Tracking Form data for December 2009 revealed a cluster of 23 potential variance episodes of breakdown point = documentation and further analysis revealed all had breakdown subcategory = failure to sign the MAR."

D. Describe contributing issues and/or barriers associated with the cluster, trend, or outcome category E, F,G,H,or I.

5. Prevention of future occurrences:

A. Describe the basic design of the action plan: what is to happen to prevent future such occurrences?.

B. List the personnel/teams involved with the action plan. Who or what teams participated in the design of the action plan? Who is affected by the action plan?

Policy: Medication Variance Reporting and Analysis
INTENSIVE ANALYSIS OF MEDICATION VARIANCE

Identification

C. Describe the progression of action plan design through implementing the action plan. Who and what was involved in getting the plan up and running?

D. Describe the implementation of action plan, providing documentation whenever appropriate (revised policies, procedure, edits to forms, process development/redesign, environmental changes, evidence of education or training).

E. Evaluation of Action Plan: Was the Action Plan successful? If so provide detail and evidence of success or change. If not, determine what elements of the action plan require further attention, and steps being taken to address issues.

6. When Form Is Complete: Sign and Date:

Signature of Medication Surveillance Committee Chairperson

Date:

Signature of Clinical Director

Date: