

Guidelines for Admission Medication Regimen Review (aMRR) in the Nursing Facility Setting

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The purpose of this document is to identify the objective components for the Admission Medication Regimen Review (aMRR)* and to provide guidance on an effective interdisciplinary team approach, which includes the pharmacist in nursing facilities.

**Please note: In this document, “medication regimen review” will be used synonymously with “drug regimen review.”*

Background

Medication-Related Problems

Medication-related problems are a major cause of morbidity and mortality in the healthcare system. They are estimated to be the largest cause of hospital readmission (40%), and many are considered preventable.¹ It is also estimated that 22% of Medicare beneficiaries experience adverse events during a nursing facility stay, of which 37% are medication-related.² Transitions of care-related medication errors are increased in post-acute care transitions due to shorter lengths of stay and greater health acuity of the patient.³ Pharmacists are highly trained medication management experts who are uniquely qualified to reduce medication-related problems, improve patient outcomes, reduce readmissions to acute care, and reduce unnecessary costs.⁴

Types of Medication Regimen Reviews (MRRs)

MRR is the thorough evaluation of the medication regimen of the patient with the goal of promoting positive outcomes and minimizing adverse consequences related to medications. The review should include preventing, identifying, reporting, and resolving medication-related problems, medication errors, or other irregularities as well as collaboration with other members of the interdisciplinary team.⁵ It is recognized that the pharmacist has the specialized training and clinical expertise to perform these reviews.

The MRR performed by a pharmacist has advanced over the years, with the increasing acuity of the residents entering a nursing facility and their associated complex medication regimens. Guidelines and standards for pharmacist to perform MRR have been developed and continue to advance within the nursing facility setting as the industry focus is shifting from long-term care to post-acute care.⁵

¹ Rodrigues CR, Harrington AR, Murdock N et al. Effect of pharmacy-supported transition-of-care interventions on 30-day readmissions: a systematic review and meta-analysis. *Ann Pharmacother* 2017;(e-pub ahead of print). doi:10.1177/1060028017712725.

² Levinson D. Adverse Events in Skilled Nursing Facilities: National Incidence Among Medicare Beneficiaries. Department of Health and Human Services: Office of Inspector General. February 2014. Available at <https://oig.hhs.gov/oei/reports/oei-06-11-00370.pdf>. Accessed July 1, 2019.

³ Improving Care Transitions in Nursing Homes. *J Am Soc Aging*. Available at <http://www.asaging.org/blog/improving-care-transitions-nursing-homes>. Accessed April 23 2019.

⁴ American Society of Consultant Pharmacists. Position Statement: Pharmacist Role in Transitions of Care. *Consult Pharm* 2017 Oct;32:645-9.

⁵ American Society of Consultant Pharmacists. *Consultant Pharmacist Handbook: A Guide for Consulting to Nursing Facilities*. Fifth Edition. 2018;4:33-57.

A monthly review may no longer meet the needs of the resident or the nursing facility. The need for a prospective, concurrent, and/or retrospective MRR process by a pharmacist that is resident-centered has led to further defining the types of MRR that now exist (Table 1).

Table 1. Types of MRRs

Admission MRR

- *A review that is completed for a resident upon admission to the nursing facility*

Monthly MRR

- *A review that is completed by a pharmacist on a monthly basis as required by regulatory requirements*

Change of Condition

- *A review that is completed by a pharmacist in the interim between monthly reviews on a resident who may experience an acute change of condition or as requested by another member of the interdisciplinary team*

Centers for Medicare and Medicaid Services (CMS) State Operations Manual (SOM) MRR

The pharmacist MRR requirement as a condition of participation for a nursing facility in the Medicare program was promulgated in 1974. Several subsequent updates to the CMS SOM has expanded elements of the MRR requirement, with the advancement of the pharmaceutical care⁶ concept and the increasing acuity of the residents entering a nursing facility. MRRs may now be required more frequently based on the resident's condition or the potential for adverse effects from medications. This includes short-stay (less than 30 days) or acute change of conditions MRRs.

IMPACT ACT Drug Regimen Review

The IMPACT (Improving Medicare Post-Acute Care Transformation) Act of 2014 requires the reporting of standardized patient assessment data in regard to quality measures and standardized patient assessment data elements across all post-acute care settings.⁷ One of the original quality measure domains is medication reconciliation. In 2018, the final rules for nursing facilities, inpatient-rehabilitation facilities, and long-term care hospitals for this measure were released for implementation. In the nursing facility setting, the requirements are defined in the MDS 3.0 Resident Assessment Instrument manual, which defined the medication reconciliation measure as a Drug Regimen Review (DRR) requirement that includes medication reconciliation. The intent is to have a DRR conducted upon the resident's admission to the

⁶ Hepler CD, Strand LM. Opportunities and responsibilities in pharmaceutical care. Am J Hosp Pharm. 1990;47:533–543.

⁷ IMPACT Act of 2014 Data Standardization & Cross Setting Measures <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/IMPACT-Act-of-2014/IMPACT-Act-of-2014-Data-Standardization-and-Cross-Setting-Measures.html>

nursing facility throughout the stay and to address any clinically significant medication issues in a timely manner. This definition of DRR is not necessarily congruent with the existing SOM requirements for MRR. While the discipline that performs the DRR is not specified by the IMPACT Act, the pharmacist is the health care practitioner most prepared to perform this function.

Medication Reconciliation

According to the Joint Commission, medication reconciliation is the process of comparing a patient's medication orders to all of the medications the patient has been taking or should be taking.⁸ The reconciliation is done to avoid unintended medication errors such as omissions, transcription, or duplication errors. This process is contingent on having two medication lists available to review at a minimum: one from the prior care setting or from the patient when the admission is from the community, and the other being the active medication list approved by the physician upon admission at the current care setting. The act of MRR may or may not include medication reconciliation, since these are two separate processes. It may also depend on the availability of the medication lists and the facility policy for medication reconciliation. Some facilities may choose to have medication reconciliation performed by another member of the interdisciplinary team, and then the MRR performed by a pharmacist.

The actual process of medication reconciliation may also be performed differently depending on the interdisciplinary team member performing the medication reconciliation. For example, a nurse may compare the prior settings medication list to the medication list approved by the attending physician within a nursing facility. A prescriber (physician or nurse practitioner) may reconcile the patient's active medication orders during their stay prior to discharging them from the acute care facility. A pharmacist may reconcile the medication list from the prior care setting to the current care setting's active medication orders and also perform MRR at the same time. These are two separate acts that can work in unison to ensure the most accurate and safe medication regimen for the patient. The patient should always be consulted, when practical, to ensure a patient-centered approach and to clarify medication discrepancies.

Interdisciplinary Team in the aMRR Process

ASCP takes the position that the pharmacist is the lead discipline that can perform MRR most effectively in conjunction with the interdisciplinary team members who are also essential in achieving optimal outcomes for the residents in their care. This section outlines the role of each member of the interdisciplinary team during the aMRR.

Role of the Pharmacist

The senior care pharmacist should take the lead role in ensuring an effective aMRR process within the nursing facility. The actual aMRR process may be performed by this pharmacist or another appropriately trained designated pharmacist, which may include but is not limited to an operational pharmacist within a dispensing pharmacy. In this case, it is essential that both pharmacists communicate regularly to identify

⁸ The Joint Commission, National Patient Safety Goal 03.06.01. Available at <https://www.jointcommission.org/standards-information/npsgs.aspx>, Accessed May 30, 2018.

urgent issues or trends that need to be addressed with the interdisciplinary team at the nursing facility. Regardless of the pharmacist model used, standard guidelines and essential elements to perform them should be followed as further defined in this document.

The basic acts of a pharmacist dispensing a medication from a pharmacy alone would not meet the requirements of an aMRR, although this service is a valuable first step in the process to ensure medication safety. Individual pharmacy State rules and regulations set the drug utilization review requirements of a pharmacist when dispensing medications.

The pharmacist performing the aMRR should communicate regularly with the facility nursing staff and have a process to address clinically significant medication issues that need to be addressed in a timely manner. Clinically significant medication issues have the potential for immediate harm to the resident, and the pharmacist should take immediate action to contact the nursing facility to resolve the issue. The pharmacist should also be available to answer any questions and should contact the facility staff if further clarification is needed on any potential irregularities.

The CMS SOM provides guidance for pharmacists and the minimal standards for medication management that must be met by each nursing facility. These include the definition of an unnecessary drug and psychotropic drugs. The pharmacist performing the aMRR needs to be knowledgeable of these requirements and guidelines.

Pharmacists should provide guidance and regular reporting to the facility on process improvement opportunities as patterns or trends are identified during their aMRR process to improve the quality of care and outcomes to the residents.

Role of the Facility Administration and Nursing

The facility leadership (including nursing, administration, and the Monitored Dosage System [MDS] coordinator) are essential in the aMRR process. The facility should provide the pharmacist with the appropriate information to allow for a thorough MRR once the resident is admitted to the facility. This includes access to any electronic health or medical record systems. Minimally, the pharmacist would need access to the resident's medication orders, original discharge medication orders from the previous care setting, diagnosis list (or face sheet), and any clinical documentation transferred from the previous care setting.

Facility nursing staff performing the admission process for a newly admitted resident also have a role in medication safety when they confirm new medication orders with the attending physician. This should include a medication reconciliation of the medications from the previous care setting to the orders received upon admission. Another verification step performed by another nurse should be performed when orders are entered into any electronic health record system, to avoid transcription entry errors. This step, while important, should not be considered a MRR due to the limitations of this review.

Any irregularities found by the pharmacist need to be addressed in a timely manner, especially any clinically significant issues. The facility must have a process in place to address any recommendations made by the pharmacist and a full understanding of the regulatory requirements and the potential impact

on the clinical care of the resident. Facility staff must have frequent communication with the pharmacist completing the aMRR, the facility senior care pharmacist, and the resident's medical provider to ensure recommendations are addressed in a timely manner.

The IMPACT Act requires all clinically significant medication issues to be addressed by the physician (or designee) by midnight of the next calendar day due to potential harm to the resident. There is also potential for decreased reimbursement (-2%) if the MDS section is not completed timely or coded incorrectly. The facility should have a policy and procedure and educational training for staff on the importance of this process, and how to best communicate appropriate records to the MDS coordinator.

Patterns or trends in medication-related problems should be addressed regularly at the facility quality assurance and performance improvement meeting or other interdisciplinary team meeting. Interdisciplinary team members include, but are not limited to, the facility administrator, medical director, director of nursing, and senior care pharmacist.

Role of the Medical Director and Medical Providers (Physician, CNP, PA)

The facility medical director is a key member of the interdisciplinary team to ensure an effective aMRR process is in place at the nursing facility, to ensure recommendations are addressed timely, and to provide medical oversight of the processes to ensure positive outcomes. As part of the interdisciplinary care team, medical providers must also understand the aMRR process within a nursing facility as well as the requirements for promptly responding to clinically significant medication issues and addressing other non-urgent recommendations in a timely manner. They are also required to provide rationale for not agreeing with any pharmacist recommendations, per the SOM.

Physicians also play a key role in medication safety when confirming medication orders for a newly admitted resident with the facility nurse.

Timeliness of the aMRR

The aMRR should be performed as close as possible to the actual admission of the resident into the facility. The facility is responsible for having policies that address the different types of medication regimen reviews per the CMS SOM. These policies should include when facility staff should notify the pharmacist to perform an aMRR. Clinically significant medication issues identified by the pharmacist that have the potential to harm the resident need to be communicated to the facility director of nursing and/or facility nurse immediately per the facility policy. The pharmacist may also contact the resident's medical provider directly in certain instances; however, the facility still needs to be informed of the medication issue to coordinate care.

Guidelines for Performing an aMRR

The following guidelines are recommended when performing an aMRR to ensure a thorough, effective review and to ensure resident safety and optimal clinical outcomes. Four essential steps are recommended (Table 2).

Table 2. Essential Steps in Performing an aMRR

1. *Obtaining the necessary information or records for the review*
2. *The clinical review process*
3. *Communication of irregularities from the review*
4. *Documentation of the review*

Obtaining the Necessary Information or Records for the Review

Access to the full patient medical record is important in completing a thorough aMRR for a resident. Most of the reviews can be completed by a pharmacist off-site using electronic health records and/or scanned/faxed medical record documents that transferred with the resident from their previous care setting. Other Health Insurance Portability and Accountability Act-compliant current technologies to ensure real-time clinical information should also be considered. It may be necessary for the pharmacist to contact the facility nursing staff directly if more information is needed or if a potential irregularity needs clarification based on the information available during their review.

Obtaining the appropriate documents, particularly in a short timeframe after a resident has transferred into a nursing facility is essential in performing an effective review. Sometimes this can be difficult, but it is best to work with the nursing facility to develop a sound process to obtain the information. Pharmacists should strive for access to as many pertinent documents as possible before beginning the review. This may include requesting electronic health records access (facility and transferring hospital if possible), reviewing the hospital discharge records and medication list, reviewing physical chart documents if the review is completed onsite, or coordinating with the nursing facility to obtain the information if the review is completed off-site.

Minimally, the following information should be obtained in order to complete the aMRR:

Facility orders
Medication administration record
Diagnosis list (face sheet)

Optimally, the following documents should be obtained:

Transfer orders received from the previous care setting (which may include hospital discharge summary, discharge medication list, clinical progress notes, history and physical documentation, home medication list, etc.)



Consideration should be made for other documents, depending on the clinician's judgment and availability. These items may also include nursing notes, progress notes, history and physical assessments, and lab reports. Special attention is needed in regard to medication monitoring for narrow therapeutic index medications, such as digoxin.

The Clinical Review Process

Once the appropriate information is obtained, the pharmacist should have a standard approach to identify, prevent, report, and resolve any medication-related problems associated with the resident's admission medication orders.

The aMRR process should use the following framework to address medication-related problems. This is the basis for all the forms of MRRs:^{9,10,11}

- **Medication without an appropriate indication**
 - Resident is taking a medication with no documented medical indication
- **Duplicate therapy**
 - Resident is taking two or more medications in the same drug class
- **Improper medication selection**
 - Resident is taking a medication that is not the most appropriate based on the resident's condition, diagnosis, or other needs
- **Sub-therapeutic dosage**
 - Resident's medication dosage is too low to be effective for the indication
- **Overdosage**
 - Resident is taking a medication at dose over the recommended maximum or dose greater than recommended for their condition (i.e., renal insufficiency)
- **Adverse drug reaction**
 - Resident is taking a medication with potential for an adverse drug reaction or may be experiencing an actual adverse drug reaction
 - Resident is taking a medication and has a known allergy to it
- **Untreated indication**
 - Resident has a medical indication that may require a medication but is not receiving it
- **Drug interactions**
 - Resident may have a potentially significant drug-drug, drug-food, or drug-disease interaction
- **Medication monitoring**
 - Resident is taking a medication that requires monitoring that is not in place or ordered, including not available
- **Medication errors (transcribing or transcription, order entry, or human error)**
 - A deficiency or weakness in the medication use process that can result in actual or potential harm to the resident
 - This includes medication reconciliation when previous care setting medication lists are available
- **Regulatory compliance issues**
 - CMS SOM includes a number of requirements for certain medications that the nursing facility must follow. The pharmacist can support the facility by providing guidance on these requirements during their aMRR. (i.e., psychotropic medications)

⁹ Clark TR, Gruber J, Sey M. Revisiting drug regimen review, part I: the early history and evolution of DRR. Consult Pharm. 2003;18:215-20.

¹⁰ Clark TR, Gruber J, Sey M. Revisiting drug regimen review, part II: art or science. Consult Pharm 2003;18:506-13.

¹¹ Clark TR, Gruber J, Sey M. Revisiting drug regimen review, part III: a systematic approach. Consult Pharm 2003;18:656-66.

Communication of Irregularities from the Review

All aMRRs and their associated recommendations must be communicated in a timely manner to the facility. Pharmacists should work with the facility to develop a collaborative process to ensure timely responses to recommendations, allowing for resident safety, quality outcomes, and regulatory compliance. The facility should have written policies and procedures that address the pharmacist MRR recommendations, and this includes the aMRR. This should also include an agreed-upon approach on how recommendations are going to be communicated to the facility staff who must communicate the recommendation to the medical team. The pharmacists and facility must also consider the responsibility of communicating any clinically significant medication issues by midnight of the next calendar day to the physician or designee per the IMPACT Act requirements for nursing facility. This information should also be appropriately provided to MDS nurse for proper coding of the MDS.

It is highly encouraged that all members of the interdisciplinary team communicate directly with each other when clarification on the recommendation may be needed. This is essential in providing a resident-centered approach. Pharmacists should store all records of communication to the nursing facility as well as a copy of their aMRR and their recommendations. If the pharmacist performing the aMRR is not the facility senior care pharmacist, that pharmacist must communicate irregularities to the senior care pharmacist.

Documentation of the Review

Documentation of the aMRR should take an interdisciplinary team approach, with each team member documenting their actions along the process. The pharmacist should document all aMRRs, even if there are no irregularities. This needs to be provided to the facility to ensure compliance with regulatory requirements, such as the IMPACT Act. The facility should have a policy and procedure for addressing all pharmacist recommendations and documentation of follow up by the facility. The completed aMRR document should be maintained in the facility in a readily retrievable manner, as a part of the resident's medical record.

Conclusion

Care within a nursing facility continues to advance into post-acute care with the increasing acuity of the residents they admit from acute care facilities. The pharmacist MRR process has also advanced with this change, as evidenced by recent regulatory changes including the SOM Mega Rule and the IMPACT Act. MRRs now include the aMRR, the change of condition MRR, and the monthly MRR.

This document sets the objective components and lays a framework for the aMRR process to ensure optimal outcomes for the resident with an interdisciplinary team approach. The requirements for effective medication management by a pharmacist through MRR will continue to expand with the increasing focus on patient-centered care, improved outcomes, and reduced costs in our healthcare system.

The pharmacist is the highly trained medication management expert that is uniquely qualified to perform the aMRR in conjunction with the interdisciplinary team to achieve optimal outcomes for the residents in their care.