

Pharmacists Standard Operating Procedure of Australian Home Medicine Review of October 2011- A Review

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Abstract-

The main intention of rendering Home Medicine Review health care services is to assist patients to improve health care outcomes as per the direction of medical consultant. Home Medicine Review priority is given for patients who are prescribed with more number of medications (i.e. > five medications) accompanied by medications with narrow therapeutic index followed by specialised drug delivery system to assess whether therapeutic outcomes are attained in those type of particular medical conditions. Home Medicine Review always preferred among elderly patients who are residing too far away from health care clinic and finding very difficult to have follow up with medical consultant. Home Medicine Review emphasizes on medication adherence and any patient with poor medication adherence will be assisted with ideal strategies to improve medication adherence. This type of health care services will always help in establishing good rapport between patient, pharmacist and general practitioner. Home Medicine Review services in Australian region had proven that it can create employment for pharmacists and general practitioner which may be good for country in the interest of employment welfare. Apart from employment welfare, professional role of community pharmacist among general public is well recognised in Australian region because of Home Medicine Review services..

Index Terms- Home, Medicine, Review

I. INTRODUCTION

Main Intention of HMR:

- The main intention of rendering health care service by the application of HMR principles is to ensure whether patients are able to find health care benefits with regarding to prescribed medications and to ensure appropriate medications are administered in according to respective medical conditions.
- The success of Home Medicine Review depends upon proper coordination with pharmacist, patient and general practitioner.
- This type of health care service was designed by Australian pharmaceutical society to provide more health care benefits to commuters living in Australian Society which is reflected by good prognosis of patient.

Criteria to be fulfilled for enrolling in HMR Service:

- Prescribed with more than five medications or exceeding 12 doses /day or being treated permanently for three different medical conditions.
- Any patient discharged from health care institution for the last one month.
- Different medications were changed from the last 120 days.
- Any patient prescribed with medication having narrow therapeutic index eg Theophylline etc which require close monitoring of medication having narrow therapeutic range.
- Any medication that is suspected to cause adverse drug reaction, depending upon how patient is responding to those administered medications.
- If therapeutic response of any patient is below the expectations of therapeutic goals of treatment.
- Any patient is prescribed with new drug delivery system such as inhalers, rotohaler etc where they could not able to follow the correct instructions of drug delivery system resulting therapeutic failure may be suspected for medication non adherence.
- Any patient having difficulty to read the instructions given on label of medicinal product.
- Anyone having poor history of hearing or vision or ability to think due to age.
- Patient having more history of falling down.

GENERAL PRACTITIONER EVALUATION:

Patient after undergoing clinical examination from concerned general practitioner will be assessed whether he or she fits into HMR service. If any patient meeting HMR criteria will be referred to nearby community pharmacist by general practitioner for further evaluation of the same. The registered pharmacist must be licensed to carry out HMR services where it should be approved by Australian Medicare. The GP referral should provide data such as past and present medical history where it gives information regarding social history, followed by medications and laboratory investigations that was directed in that particular case.

PARTICIPANT AGREEMENT:

If participant is willing to undergo HMR service, which will be confirmed by GP in according to the requirements of HMR criteria, participant will be directed to choose nearby community

pharmacy where he/she is residing or directly to a registered pharmacist in according to Australian Pharmacists register.

be receiving directions given by an accredited pharmacist and GP in the interest of patient welfare.

HMR INTERACTION IN PATIENT HOME:

The medication review will be conducted in patient home by a registered pharmacist as per the direction of patient consultant. The medical history given by HMR referral will be combined that will be collected at the time of HMR interview in patient home. The medical history data collected during HMR interaction gives a provision to convey a message regarding medications and medical condition aspects to patient and patient health care takers.

DRUG PERTAINING ISSUES:

The accredited/registered pharmacist contributing under HMR services will be identifying drug related issues which may end up with therapeutic failure. All drug related issue matters will be collected by having interaction with patient, concerned patient consultant and appointed HMR Community Pharmacist. These issues may be related to drugs such as drug administered without any therapeutic indication, followed by drug not been prescribed by patient consultant when there is requirement of that particular medical condition, prescribing inappropriate drug to certain medical condition Eg: Antibiotics prescribe during viral infections etc, prescribing lower dose than ideal dose in respective medical condition, Prescribing dose by patient consultant which exceeds more than the recommended dose /day, patient experiencing harmful reactions after administration of drugs, Patient prescribed with more than eight medications needs to be screened for drug drug interactions where one drug interacting with another resulting changes in pharmacokinetic or pharmacodynamics activity and patient not been able to receive drugs as per the prescription of patient consultant.

HMR FINDINGS:

HMR findings reflect that brief summary of HMR which was conducted by accredited pharmacist in patient home where it gives following information such as drug related issues, directions by GP, if any pharmacist intervention with regarding to drug related issues, and if any follow up activities including date and time. The records relating to HMR should be preserved in proper way for future reference. The moment once HMR report has been conveyed to GP, follow up interaction with patient will be arranged by the GP so that HMR findings will be discussed and patient will be convinced to adhere as per medication management plan/individual patient strategic plan.

MEDICATION MANAGEMENT PLAN:

The main intention of medication management plan is to reflect any medication related problems identified by accredited pharmacist during HMR interview and the same thing will be communicated with hard copy to patient and patient's selected community pharmacy by GP.

FOLLOW UP:

Follow up of HMR depends upon individual patient prognosis with regarding to medication and disease status where they will

BACKGROUND OF THE STUDY:

The main purpose of initiating Home Medicines Review was to minimize inappropriate use of medicines, followed by to reduce medication related problems as much as possible and to help in improving better health outcomes of patients as per the fifth community pharmacy agreement for pharmacists and under MBS item 900- Domiciliary Medication Management Review for participating general practitioners Medication management means ensuring quality use of medicines which should possess three criteria such as safe, effective and economic use of medicines, which is assisted by Australian Government to develop ideal medicines for Australian community. As per the instructions directed by Australian government, the main intention of national medicines policy was to ascertain better health outcomes of patients after receiving any medications irrespective of medical conditions. Australian Pharmaceutical advisory committee works with the intention of safety, effectiveness and economic use of medications, the administered medication for respective medical condition should ensure that it can improve health outcomes of patient.

The purpose of developing HMR guidelines for pharmacists is to ensure good health care services should be rendered by pharmacists to Australian general community so that pharmacy profession should be progressed with ideal health care results as per the expectation of concerned consultant and patient. The guidelines means it is not permanent statement issued, but are framed in such a way that it may get modified in according to the health care professional advice or suggestions to pharmacists on professional operation followed by expected skills for good practice and completing the task in a given period of time.

SCOPE OF HMR GUIDELINES:

The health care services rendered by pharmacist through HMR should be delivered only to Australian citizens living in the society. The law-making directions or instructions have not clearly specified in these HMR procedures. It is anticipated that pharmacists need to follow the appropriateness of state or regional law-making therapeutic supplies as per the directions and more importantly secrecy of health care services should not be disclosed at any point of time. Pharmacists have anticipated in such way health care services will be assessed through scientific thinking and able to withstand any dangers related to HMR services. If any important decision is taken with respect to HMR services, it should always be documented in correct way and finally awareness should be created for rendered health care service of pharmacist in such a way that he/she is morally held responsible for assuring appropriate and safe use of medications.

TERMINOLOGY:

1. Accredited Pharmacist-Pharmacist who is registered under the certification body known as Australian Association of consultant Pharmacy (AAcP) or the Society of Hospital

- Pharmacists of Australia (SHPA) where he/she has provision to conduct medication reviews.
2. Approved HMR service provider-It means ethically a section 90 pharmacy or registered pharmacist where appointment will be given for registered pharmacists which has been certified by governing body known as Medicare to conduct HMR services. Registered pharmacist who is providing HMR services needs to follow terms and conditions which is directed by certified body known as Medicare.
 3. Nominated Community Pharmacy-Patient will select ideal community pharmacy to receive health care services through HMR.
 4. Health Care Team-It means a group working in the interest of health welfare which includes team member such as patient, patient care taker, certified pharmacist, pharmacist who is working in either hospital or community, followed by general practitioner, nurse or other health care professionals.
 5. Home Medicines Review-It means medication screening conducted in patient home where it is previously known as Domiciliary Medication Management Reviews (DMMR), a term which is still applied in health care practice or the other approved terminology is community medication reviews.

CERTIFICATION ESSENTIALS NEEDED TO FULFIL BY PHARMACISTS FOR RENDERING HMR SERVICE:

- To ascertain for providing health care services such as Home Medicine Review, Medication Review Services, and Residential Medication Management Reviews, certified pharmacist should undergo adequate level of training as per the recommendations of Australian Association of consultant Pharmacy (AAcP) or the Society of Hospital Pharmacists of Australia (SHPA).
- As per the directions of Australian Association of consultant Pharmacy (AAcP) or the Society of Hospital Pharmacists of Australia (SHPA) certified pharmacist should have consistent practical skills to render particular medication review service.
- As per the direction of Australian Association of consultant Pharmacy (AAcP) certified pharmacist should undergo evaluation of theoretical knowledge and practical skills once in every three years and yearly to confirm whether certified pharmacist have updated knowledge with regarding to this medication review service to sustain in continuing professional development.
- As per the recommendations of Society of Hospital Pharmacists of Australia (SHPA) certified pharmacist should undergo evaluation of theoretical knowledge and practical skills once in every five years to endorse that knowledge acquired is specific to the medication review services to sustain in continuing professional development.

CANDIDATE SHOULD MEET FOLLOWING CRITERIA FOR ATTAINING HMR SERVICE PROVIDER:

- Confirmation is required from Medicare to be a HMR service provider.

- Follow the correct procedure as per the directions of professional bodies for conducting HMR.
- Make sure that all participating certified pharmacist who will be rendering HMR services should follow strict procedure as per the directions of Australian health care governing bodies.
- Certify in such a way that only certified pharmacist should have clinical evaluation of respective medical case and correct report should be given with regarding to HMR services provided by certified pharmacist.
- Preserve in such a way that insurance specific conditions of the pharmacy and certified pharmacists who are rendering health care services of HMR.
- The HMR services rendered by certified pharmacists should convey all HMR report to Department of Health and Ageing (DoHA) or Medicare for audit purposes.
- Certified pharmacist should ensure that HMR services are able to meet certain professional standards and maintain patient privacy in such a way that information should not be leaked at any particular point of time.

HEALTH CARE SERVICES TEAMWORK:

Pharmacists who are part of HMR health care service should get associated with other members such as patients, community pharmacists, general practitioners, health care takers, family members who are willing to agree all terms and conditions of HMR services.

Certified pharmacists must associate with the patient selected community pharmacy and collect patient past, & present dispensing history of medications as well as other relevant information pertaining to medication aspects. Certified pharmacist should convey consolidated HMR report to patient selected community pharmacist after taking informed consent from the respective patient. Patient consultant must have clear management plan about their medical case and later on this information should be conveyed to selected community pharmacy of patient.

The purpose of creating pleasant relationship among all health care professionals is to ensure that HMR operation should be successful and at the same time, it can also build-up good rapport of patient and health care professionals. Awareness should be created to general public about the importance of HMR, where this type of awareness can be done by conducting HMR sessions to general public, so that general public can realize how this type of health care program may be more helpful in finding health care success. HMR specialist should also need to create awareness to practicing clinician so that which type of medical cases can be recommended for HMR and at the same time what are the merits and demerits of HMR. The broader horizon of HMR can be reflected to general public and practicing clinician through distributing HMR leaflet and HMR brochure 910.

PURPOSE OF HMR ARE TO:

- Ensure rationality of drug use among prescribers, if there are any medication related problem among patient, it should be brought to the notice of concerned consultant.

- Make sure that patient should have better quality of life by giving proper suggestions/advice regarding all the medication aspects.
- Create more awareness by providing suggestions to patient and health care professional regarding medication aspects.
- Health care team should have better understanding among all team members so that they can attain health care aims.
- Appreciate the contribution of each and every team member in HMR team.

SPECIFIC REQUIREMENT FOR PATIENT TO BE ENROLLED FOR HMR:

- Prescribed with polypharmacy prescription.
- Recommended more than 12 doses/day
- Existing three or more comorbidities.
- More changes to therapeutic regimen in the last three months.
- Patient prescribed with medicine which falls under narrow therapeutic index.
- Any suspicion to adverse drug reaction.
- Patient responding below the expectations of therapeutic regimen the hat is recommended.
- Not following the directions given by prescribed clinician.
- Patient having difficulty in coordinating with new drug delivery system.
- Patient possessing language problems followed by vision, hearing or inability to think properly.
- Consulting a greater number of clinicians in a short period of time.
- More medication changes were happened in the last three months.

GP DIRECTIONS FOR HMR REFERRAL:

- Any patient having more comorbidities followed by a greater number of medications are considered risk, where those type of cases will be referred.
- GP will interact with patient and finds out is there any difficulty in having medication administrations, depending upon positive or negative feedback given by patient, GP will take a decision.
- GP while recommending HMR will send HMR referral to nearby community pharmacy as per the request of patient.
- GP will ensure that complete medical case history of the patient is existing with selected community pharmacy, so that this information will be helpful for certified pharmacist for completing the task of HMR.

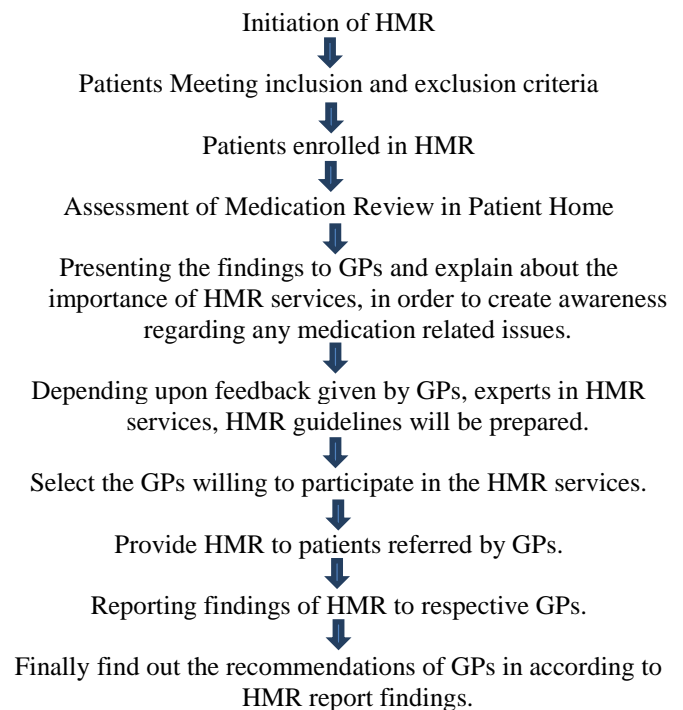
DATA THAT NEEDS TO BE COLLECTED AT THE TIME OF HMR:

- Demographic data such as patient name, date of birth, gender, weight, height, body mass index followed by related social history such as occupational history, lifestyle and cultural habits , attitudes towards illness

and treatment, general understanding about current health status and expectations from the current goal of treatments.

- Hepatic and Renal function status where most of the drugs usually get excreted by kidney and most of the drugs are usually metabolized by liver which may require hepatic dosage adjustment, if there is any hepatic impairment. The same rule applies for renal impairment also.
- Other important aspects of medical case history includes such as Ayurveda system of medicine, homeopathy system of medicine, siddha and unanisystem of medicine, etc, allergic history of medicine, life style habits of consuming more tea and coffee, more spicy foods , any patient with poor cognition abilities, family medical case history, female with menstrual history, and if any surgical history .

FLOW CHART of HMR activity



MINIMUM REQUIREMENTS TO BE MET FOR ANY PATIENT FOR RECOMMENDATION OF ADDITIONAL HMR:

- Any patient who gets discharged from hospital in the last one month.
- Changes made to prescription of patient in the past three months.
- Presenting with different type of medical conditions.
- Not able to follow the directions given by patient consultant.
- Poor coordination with medication related devices which can ultimately end up with therapeutic end failure.
- Patient presenting clinical manifestations suggestive of drug induced.

- Patient having difficulty to manage respective prescribed medicines due to confusion or impaired vision.

EFFECTIVE COMMUNICATION THAT NEEDS TO BE REFLECTED BY PHARMACIST DURING HMR INTERVIEW:

- Interviewer introduction should be given before reaching to patient home.
- Standard procedure of HMR should be explained to patient before interaction.
- Permission should be obtained from patient before asking questions.
- Patient request should be considered and in according to that information may be conveyed to spouse, health care taker of family.
- Interviewer should find out whether patient is reactive to any cultural requirements.
- Interviewer should know patient language so that proper communication may be made, so that patient is able to understand at the time interaction.
- Pharmacist needs to take permission from patient if he/she wants to see the storage of medicines in patient home.
- Once the interview is completed ,pharmacist should convey thank you note to patient for providing the permission to conduct interview in patient home.

DIFFERENT TYPES OF PRESCRIBING INDICATORS APPLIED TO SCREEN INAPPROPRIATE MEDICINE PRESCRIBING AMONG GERIATRICS PATIENTS.

- Screening tool to alert doctors to the right treatment applies requirement for drug that are applicable in according human anatomical and physiological systems.
- Screening tool of Older Persons' potentially inappropriate Prescriptions helps in identifying medication related problems among geriatric patients.
- Drug Burden Index is an evidence based tool where it measures a person complete exposure to medicines having sedative and anticholinergic properties that can cause harm to brain and physical structures of the body.
- Beers criteria will reflect medicine name that can be used judiciously only for geriatric patients.
- McLeod criteria which is Canadian information where it almost parallel to the Beers criteria.
- The Medication Appropriateness Index (MAI) is an guiding system that evaluates drug treatment rationality for geriatrics patients , applying 10 criteria for each medicine prescribed by prescriber.
- Australian prescribing indicators tool has been established based on diseases frequently found among Australian elderly people aged over 65 years.

CONFLICT OF INTEREST:

The authors declare no conflict of interest.

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