Medication Adherence Assessment of Patients in a Cardiac Rehabilitation Clinic

Douglas Doucette, BSc(Pharm), PharmD, FCSHP; Regional Pharmacy Services, Horizon Health Network, Moncton, NB

KEY MESSAGES

- 58.6% of cardiac rehabilitation patients self-assessed as high or medium risk for problems with medication adherence.
- In follow up, 4 factors accounted for 70% of adherence risks: experiencing side effects, complex regimens, medication beliefs or concerns, and forgetting to take medication.
- Short, validated assessment tools were applied consistently in practice to help uncover patients’ medication concerns and develop individualized plans to resolve drug therapy problems.

Introduction

Non-adherence to medication is a major public health issue linked to loss of work time, wasted health care resources, emergency room visits, hospital admission and death.

Adherence to medication regimens is infrequently evaluated with a systematic process or validated tool by frontline clinicians. Clinicians would benefit from having scales or tools that could be applied and scored quickly in practice to assess patients’ adherence to medication regimens, and to reliably identify factors that contribute to non-adherence.

We formalized the medication adherence process using 2 short validated scales in ambulatory patients with known cardiovascular (CV) disease or at high risk of experiencing CV events. This poster characterizes the assessment results in our cardiac rehabilitation patients over a 12-month period.

Actions

Initial screening for non-adherence was carried out on patients enrolled in the Cardiac Rehabilitation (CR) clinic at the Moncton Hospital early in their 12-week program. Patients were invited to complete the 3-item Adherence Estimator® (AE) tool.

Those with AE ratings of medium (2 to 7 points) or high (8 to 36 points) risk for adherence problems were interviewed by a member of the pharmacy team as a secondary assessment using the 11-item Pharmacist Drug Assessment Workup (DRAW®) tool. Individualized interventions were implemented at discretion of the responsible pharmacy team member. All assessments were recorded in the patient electronic health record as part of routine care.

Evaluation

Initial assessment (AE): Over 12 months, 174 patients (52 females, 122 males) completed the 3-item AE tool (Figure 1). The group’s overall risk for adherence problems with their medication regimens is shown in Figure 2.

Secondary assessment (DRAW): Fifty-nine (57.8%; 17 females, 42 males) of 102 patients deemed high or medium risk for adherence problems (by AE tool) were assessed further using the DRAW tool (Figure 3). The most common factors affecting medication adherence were side effects (n=37, 63%), complex regimens (n=29, 49%) and medication beliefs and concerns (n=20, 34%) (Figure 4). In this group, a median 2.5 (range 0-7) medication adherence barriermss per patient was found (Figure 5).

Secondary screening with a validated scale found 58.6% of cardiac rehabilitation patients at high or medium risk for adherence problems with medications. Follow up assessment with a second validated scale in those patients facilitated development of individualized plans to target causes of non-adherence while providing medication therapy management.

Discussion

The AE tool is designed to assess patient perceptions about the importance of medication, concern over medication causing more harm than good, and financial concerns. The DRAW tool is intended to be used by pharmacists working with patients on medication non-adherence, and includes a set of evidence-based questions to identify reasons for medication non-adherence, as well as suggested actions to address these reasons.

In most cases, either tool can be administered in 5 to 10 minutes. Some allowances may be needed for patients with low literacy or low health literacy. The results of AE and DRAW were not uniform in their level of risk for non-adherence; this was not surprising given the scales’ different intent and design.

The patient interview (with DRAW) yielded several instances where new drug therapy problems were identified. Inquiring about responses to AE tool also provided useful information. For example, asking about patient’s serious concerns of more harm than good (AE tool) identified complaints of new adverse effects not previously reported by the patient. All of this information was helpful when developing pharmaceutical care plans for patients.

Implications

Brief screening with a validated scale found 58.6% of cardiac rehabilitation patients at high or medium risk for adherence problems with medications. Follow up assessment with a second validated scale in those patients facilitated development of individualized plans to target causes of non-adherence while providing medication therapy management.

Figure 1: Adherence Estimator® Survey Tool

Figure 2: Initial Assessment – Overall Risk for Adherence Problems with AE Tool (n=174)

Figure 3: Drug Adherence Workup (DRAW®) Tool

Figure 4: Secondary Assessment – Adherence Barriers Identified Using DRAW Tool (n=59)

Figure 5: Secondary Assessment – Adherence Barriers Identified per Patient Using DRAW Tool (n=59)

Knowledge Translation

- E-learning modules developed to train staff on assessing medication adherence and use of AE and DRAW tools.
- Assessment templates created to facilitate clinical documentation in the electronic patient record.
- A small group of pharmacists at our site to implement these tools on acute care units and non-cardiac ambulatory clinics.
- Rollout to other sites anticipated later this year.

Author Contact: Douglas Doucette@HorizonNB.ca