Approaches to educating patients on anticoagulation
Amy Levesque, Advanced Practice Pharmacist, Brigham & Women’s Hospital, Boston, MA

Amy opened the presentation by outlining the key points to be highlighted, primarily National Patient Safety Goals (NPSG) relating to outpatient anticoagulation; patient education approaches used by Brigham & Women’s AMS; and the plan to document and report patient education using DAWN AC.

Key anticoagulation statistics were highlighted:
- Anticoagulants are the highest risk outpatient drug treatment in older adults
- In 2015 the FDA received:
  - 34,765 adverse drug event reports related to oral anticoagulation therapy
  - 2,997 of these resulted in patient deaths
  - 9,523 of these required hospitalization

Since 1993, the Joint Commission has mandated that patient and family education be part of comprehensive care. In later years, the following goal relating specifically to anticoagulation was added:

National Patient Safety Goal 03.05.01
- Provide education regarding anticoagulant therapy to prescribers, staff, patients, and families. Patient/family education includes the following:
  - Importance of follow-up monitoring
  - Compliance
  - Drug-food interactions
  - Potential for adverse drug reactions and interactions
- Evaluate anticoagulation safety practices, take action to improve practices, and measure the effectiveness of those actions in a time frame determined by the organization

Although the Joint Commission have developed many standards for health education efforts, they do not mandate methods of delivering such education in an outpatient setting, therefore leaving room for individual institutions to design their own approaches.

Learning is more effective when multiple strategies are used and studies have shown that quality education in anticoagulation leads to:
- Increase in patient knowledge of disease and treatment
- Increase in time in therapeutic range (TTR)
- Decrease in major bleeding events
- Decrease in composite bleeding and thrombotic events
- Decrease in hospital re-admission rates

A commonality of each of the studies resulting in the outcomes above was that all of them compared a structured, multi-modal approach to one that only provided patients with a pamphlet/informative printout.

A structured, multi-modal approach is key to quality education

This is the approach used at Brigham & Women’s AMS and is shown in more detail below:

Structured
- **Checklists** – ensure that the minimum NPSG criteria is met and ensures uniform content coverage with all patients
- **Discussion Technique** – ask the patient what he/she already knows as this helps get the patient engaged and allows misinformation to be corrected and built upon
• **Patient Contract** – gives the patient an element of responsibility and ownership of their care whilst reinforcing the need to know and understand the information they are being given

• **Reinforcement** – checking the patients’ understanding is extremely important; one of the most effective ways to reinforce learning is to utilize the teach-back method where you and the patient switch roles and they reiterate what you went over. Questionnaires may also be used; two validated questionnaires include the Oral Anticoagulation Knowledge (OAK) Test and the Anticoagulation Knowledge Assessment (AKA).

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**Multi-Modal**
The AMS employ audio, visual and written methods in order to reinforce information.

The primary mode of initial education is via telephone although face-to-face sessions are scheduled if patients prefer and are accessible to the hospital. All patients receive some face-to-face education at the time of discharge for those admitted and at the time of diagnosis and treatment decision at the provider’s office for outpatients.

Written materials in the form of ‘A Guide to Taking Warfarin’ and an online education course are also used to educate patients and their families.
Using DAWN AC to document patient education

The NSPGs do not specifically mention documentation of education but it is certainly good practice to do so and there are a number of areas within DAWN AC where this can be recorded.

- Reviews
- Reminders – good for circumstances where patients are unable to receive the full education all at once
- Treatment plan
- Treatment notes – notes made here become a part of the permanent medical record
- Clinician notes – easily accessible every time you are within the profile
- Quick notes
- Questionnaires

Coded comments are also a useful way of recording patient education quickly and easily within the DAWN AC patient record and the following coded comments are used within the AMS:

- **Coded Comment - .nped** = New Patient Education Completed
  
  Comment: Patient/family member verbalized understanding of indication, target INR range, importance of INR monitoring, compliance, diet/medication interactions, clotting risks associated with their disease state, and bleeding risks associated with anticoagulants

- **Coded Comments - .ed10, .ed20, .ed30**
  
  Used for documenting re-education received by the patient and allot an amount of time associated with the encounter

Using coded comments facilitates reporting within DAWN AC that can provide statistics on the percentage of patients who have received education within a specific time period, the time spent on patient education and identifying patients who may not have received any education.

Future plans for patient education within the AMS include structuring a similar plan for DOACs (updating checklists and patient contracts; creating a new online education module; and developing new written materials) and looking at updating DAWN AC to assist with recording education more effectively (patient
Amy concluded the presentation with the following summary points:

- The Joint Commission mandates all patients and/or family members receive education related to anticoagulant medications
- The best approach has been proven to be one that is structured and includes multiple modes of teaching
- DAWN AC is helpful in ensuring patients are educated and provides space for documentation
- Best practices for documenting in DAWN AC include utilizing a trackable coded comment in a location in the profile that is easily accessible

References: