The Buck (Therapy) Stops Here: Patient-Related Barriers to Evidence-Based Therapies

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Disclosures

- None

World Health Organization
Definition of Adherence

"The extent to which a person's behavior (ex. taking medication, following a diet, and/or executing lifestyle modifications) corresponds with the agreed recommendations from a health care provider."

Methods of Evaluating Adherence Using Refill Records

- Reported as percentage of time patient has medication
  - Medication possession ratio (MPR)
    - $\frac{\text{Sum of the days' supply for all Rx fills in a time period}}{\text{Number of days in time period}} \times 100\%$
    - Will be inflated if the patient refills meds early
  - Proportion of days covered (PDC)
    - $\frac{\text{Number of days in period covered}}{\text{Number of days in time period}} \times 100\%$
    - More conservative measure
  - In general, 80% is considered adherent

Primary Non-Adherence With Statins

- Primary non-adherence = the patient did not get a new prescription filled after the prescription was written
  - 13% not filled at 30 days
    (*J Gen Intern Med*. 2012;27(1):57-64)
  - 34.1% not filled at 60 days
    (*Am J Pharm Benefits.* 2010;2(2):111-18)
  - May be younger and healthier
    (*J Manag Care Pharm.* 2013; 19(5): 367-73)
- Limitations of data: Does not capture those who pay cash for their prescriptions or order their medications from the Internet

Longer-Term Adherence With Statins

- Low adherence (PDC < 80%) in first 90 days was strong predictor for poor adherence at 1 year (*PLoS ONE* 8(11): e79611)
  - Predict as early as
    - 40 days after initiation for those with 30-day Rx
    - 100 days after initiation for those with 90-day Rx
  - Conclusion: Surveillance models may help identify these patients earlier
- Other variables associated with long-term non-adherence: primary prevention; new statin users; copay; lower income status; fewer than 2 lipid tests performed (*Can J Cardiol* 2012;28:574-80)

Statin Adherence During the First Year Influences Cost and Hospitalizations

- Pittman et al evaluated relationship of MPR at 1 year with healthcare costs and CVD-related hospitalizations during subsequent 18 mo

  (*J Manag Care Pharm.* 2014;20(7):703-13)

MPR	Baseline (%, n=381,422)	Mean adherence at 1 yr (%)
≥ 80%	67.6	94.5
60 – 79%	17.3	71.3
< 60%	15.1	43.1

  - Adherent group had lower healthcare costs & fewer CVD related hospitalizations
  - Older age, more total medications, presence of cardiovascular diagnosis, and lower copay were associated with MPR ≥ 80%
  - Conclusion: Emphasize statin adherence in first year

Statin Adherence May Change Over Time

- Slejko et al evaluated yearly changes in adherence and subsequent risk of CV events *(J Manag Care Pharm.* 2014;20(1):51-57)
  - 11,126 individuals without ASCVD who were adherent (PDC ≥ 80%) to statin therapy during the first year therapy
  - Year 2: 70% remained adherent
  - Year 3: Of those adherent in year 2, 73% remained adherent
  - Lowest adherence (PDC < 20%) was associated with more CV events in years 2 & 3
  - Conclusion: Initial statin adherence ≠ long-term adherence
  - Emphasize long-term statin adherence

Interventions That Influence Statin Adherence Switching from Brand to Generic Products

- Romanelli et al. identified characteristics associated with adherence (MPR ≥80%) after switching from brand-name to generic statins (*J Gen Intern Med.* 2014 Jun 24)
  - Higher adherence:
    - With each 10-year increase in age
    - Receipt of a generic statin equipotent to prior brand-name statin
    - Adherence with prior brand-name statin
  - Lower adherence:
    - Hispanic patients compared to non-Hispanic white
    - When switched to a higher potency generic statin
  - Conclusion: Counseling and close monitoring are necessary

Interventions That Influence Statin Adherence
Cost-Sharing Strategies

- Associated with lower statin adherence:
  - Higher copay
  - Higher out-of-pocket costs
- Associated with higher statin adherence:
  - Moving brand-name statins to lower tier and copay
  - Eliminating copay
    - Reduced rates of major CV events; overall costs did not increase

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J Gen Intern Med. 2010;25(4):284-90

Am J Manag Care. 2006;12 Spec no.:SP11-19

Clin Ther. 2007;29(12):2748-57

J Manag Care Pharm. 2014;20(1):43-50

Interventions That Influence Statin Adherence Manufacturer Coupons

- Pharmaceutical manufacturers provide coupons to encourage initiation and continuing use of brand-name medications
- Daugherty et al. evaluated the impact of coupons on statin adherence 1 year after initiating statin therapy
  - Groups: Coupon users of brand-name med, noncoupon users of brand-name med, users of generic med
  - Coupon users had highest number of statin fills
  - Non-coupon brand-name users had lowest number of statin fills
  - Adherence: highest for coupon users, then for generic users
  - Conclusion: Coupons improved adherence in first year

Manag Care Pharm. 2013;19(9):765-72

Interventions That Influence Statin Adherence Automatic Prescription Refill Program

- Pharmacy enrolled the patient in the automatic prescription refill program.
- Pharmacy initiated prescription refills on standardized, recurrent basis without being prompted by a patient request.
- The prescription may have been refilled before the patient would have initiated the refill process.
- Patients enrolled were more likely to be adherent (PDC $\geq$ 80%).

J Manag Care Spec Pharm. 2016;22(7):801-7.

Interventions That Influence Statin Adherence Medication Synchronization (Med Sync) Program

- Pharmacist worked with patients
  - "Synchronized" chronic meds to be filled on a single day each month
  - Reconciled medication list with patient each month
  - Reminded patient to pick up meds on appointment day
  - Met with patient on the appointment day to discuss meds
- Increased adherence

J Manag Care Spec Pharm. 2015;21(8):662-9.

Interventions That Influence Adherence
Meds to Beds Programs

- Bedside delivery of meds from an outpatient or retail pharmacy before discharge from the hospital
  - May eliminate/minimize
    - Delays in starting meds post hospital discharge
    - Rehospitalization
  - May increase
    - Patient's understanding of new med regimen
    - Adherence with medication regimen

http://accwebinars.acc.org/archived.php

Conclusions

- Nonadherence may occur soon after the initial prescription is written or at a later time.
- Early adherence does not necessarily indicate long-term adherence.
- Medication adherence influences clinical and economic outcomes.
- Prescription records may be used to assess adherence to medications.
- A variety of interventions may be needed to improve patient adherence with medication.