

Treatment & Adherence Barriers



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- 12:20 pm
- Panel
- Mary Ann Bauman, MD

Statin Use in the U.S.



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Statin Use in the U.S. Gaps, Barriers and Opportunities

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Utilization of High Intensity Statins After MI Is Improving



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Utilization higher in

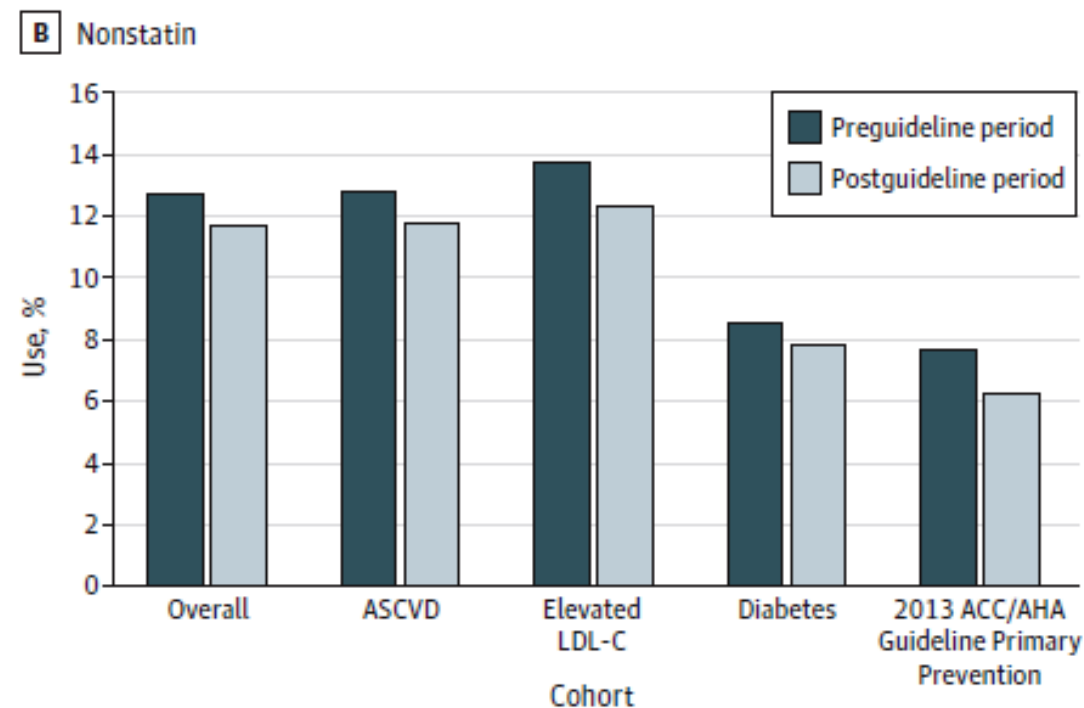
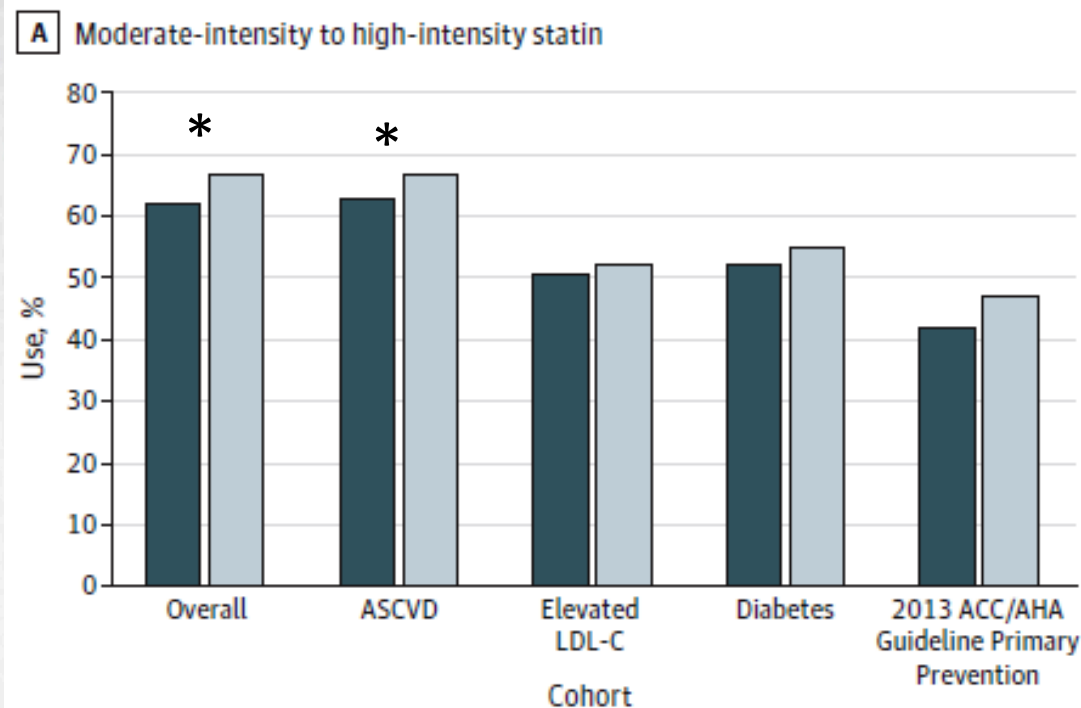
- Men: RR 1.16
- Age <65: RR ~1.3 (depending on age)
- Prior high intensity statin Rx: RR 1.52

Rosenson RS et al. Poster at ESC 2016
paper in press

Adoption of 2013 ACC/AHA Guidelines Data from PINNACLE



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Pokharel Y et al JAMA Cardiol 2017
Online 3/1/2017

161 Cardiology Practices
Time periods: 2012/2013 vs 2014/2015

Discharge Dx Determines Statin Use Medicare Data 2007-2009



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	No Prior Statin Use	Prior Statin Use
Primary D/C dx of MI	1	1
Secondary D/C dx of MI	0.59 (0.54 to 0.65)	0.89 (0.82 to 0.97)
PCI	1.00 (0.91 to 1.09)	1.01 (0.93 to 1.10)
CABG	1.08 (0.95 to 1.23)	0.99 (0.88 to 1.11)

Absolute rates of statin use:

Incident users: 60% for 1° MI dx, 31.2% for 2° MI dx; 67.6% CABG, 63.9% PCI

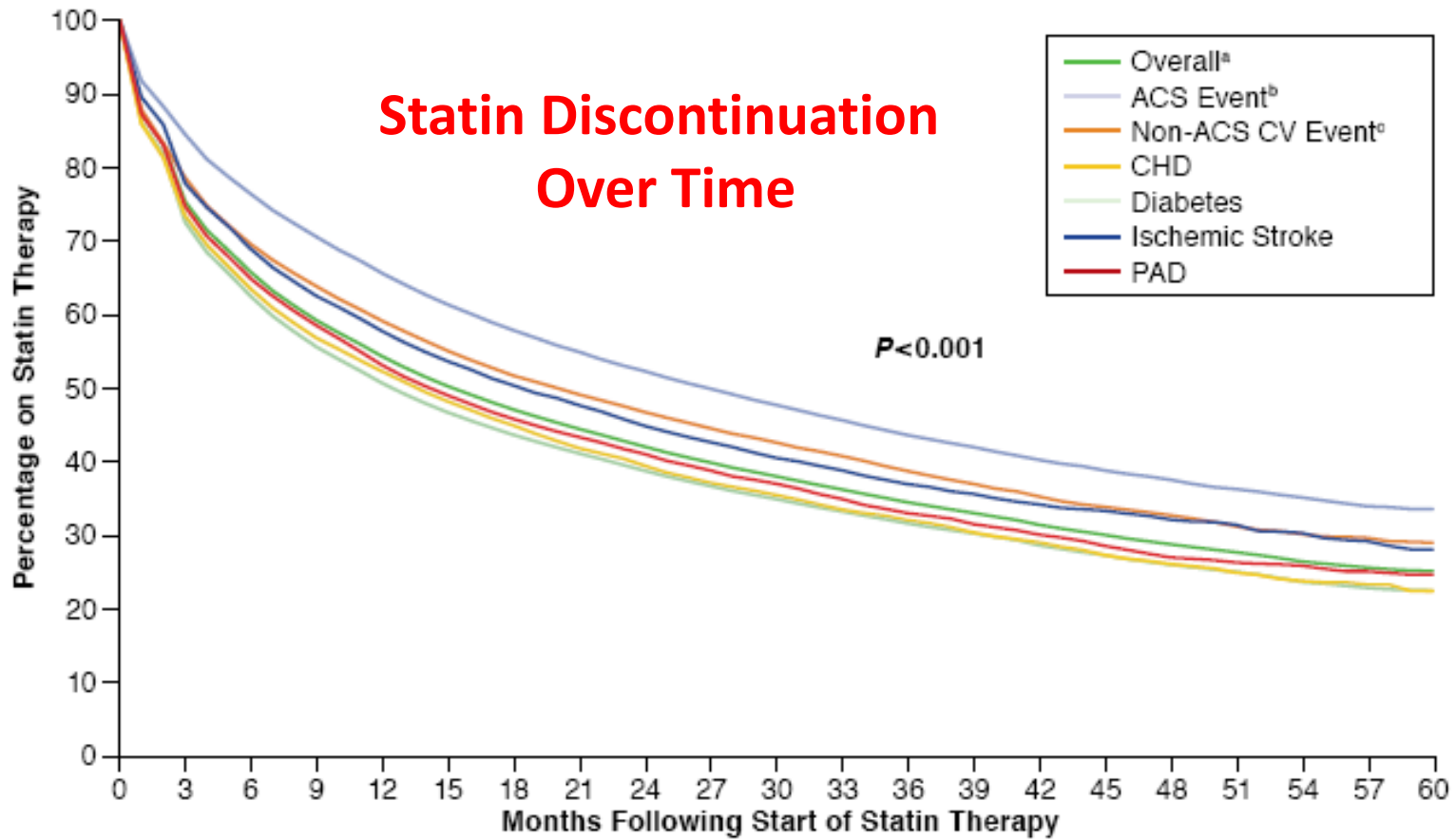
Prevalent users: 84.1% for 1° MI dx, 71.8% for 2° MI dx; 83.8% CABG, 87.3% PCI

Yun H et al. JAHA 2015;4:e001208

Statin Adherence is Poor



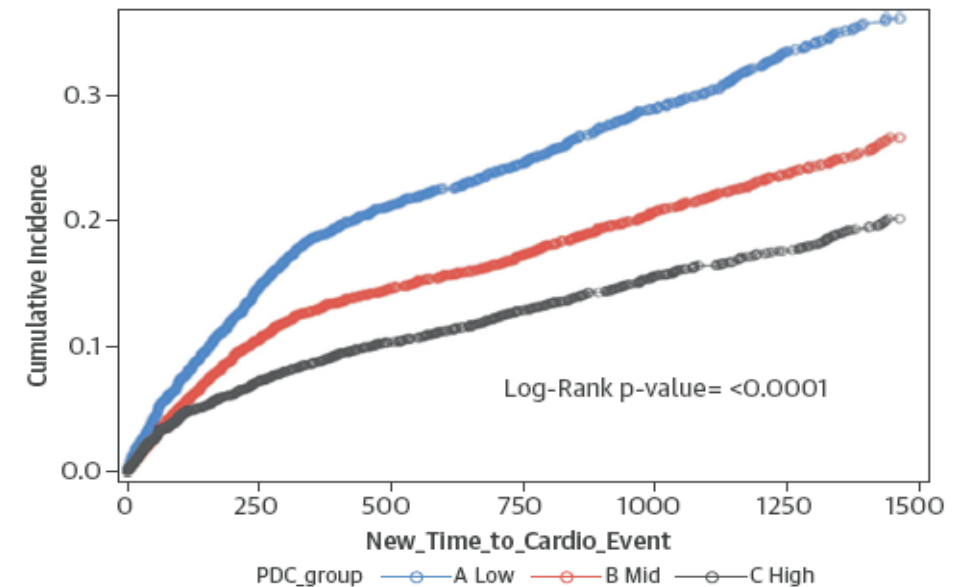
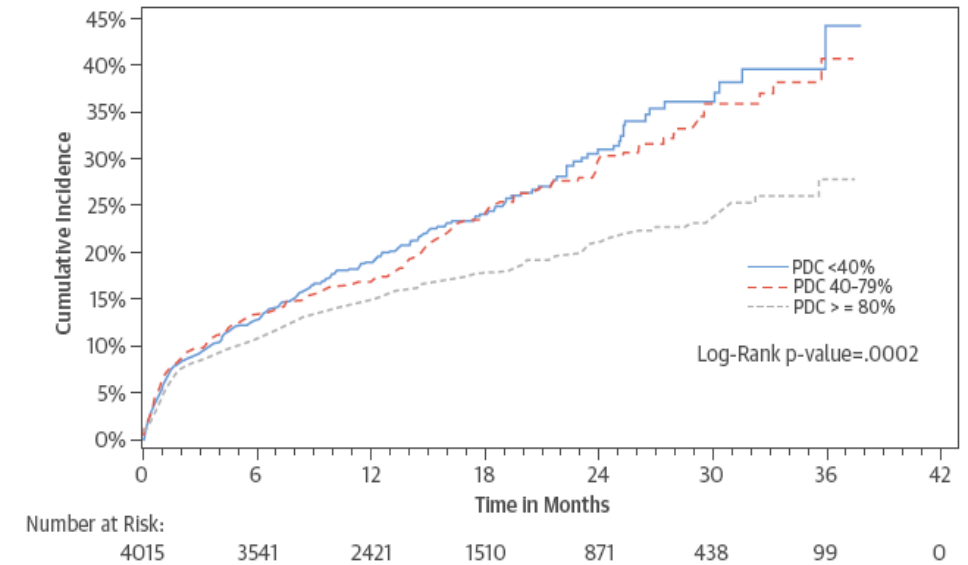
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Lin et al. J Manag Care Spec Pharm 2016;22:685-98

Adherence Matters

- Aetna Claims Database 2010-2013
 - A. Post MI Cohort
 - B. Atherosclerotic Disease Cohort
- ACE-I and Statin
- PDC (proportion of days covered)
 - $\geq 80\%$ fully adherent
 - 40-79% partial adherent
 - $< 40\%$ non-adherent
- MACE during F/U
 - All cause mortality
 - Hospitalization for nonfatal MI
 - Stroke
 - Coronary revascularization



Bansilal S et al. JACC 2016; 68:789-801

Statin Intolerance and Outcomes



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- Medicare beneficiaries who started statin post MI
 - High Adherers: 52.8%
 - Intolerant: 1.65%
- Follow-up 1.9-2.3 years
- Outcomes:
 - Recurrent MI
 - CHD events
 - All cause mortality

Intolerance and Outcomes (High adherers are the referent group)

	Fully adj. Hazard Ratio	95% CI
Recurrent MI	1.50	1.30 , 1.73
CHD Events	1.51	1.34 , 1.70
All Cause Mortality	0.96	0.87 , 1.86

Colantonio et al. CV Drugs Ther 2016;30:525-33
Serban, M.-C. et al. JACC 2017;69:1386–95

Summary



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- Guideline-appropriate statin therapy is increasing, but remains suboptimal
- Adoption is heterogeneous among patients and sites of care
- Adherence to statins is poor
- Poor adherence and statin intolerance among high risk patients are associated with higher risk of events



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Thank You

UAB COMPREHENSIVE
CARDIOVASCULAR CENTER

Knowledge that will change your world

Pharmacists and Adherence



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Steve Dunn, PharmD, FAHA, BCPS

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Scope of the Problem



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- Chronic cardiovascular disease is largely asymptomatic
- Preventative dyslipidemic pharmacotherapy does not result in symptomatic improvement
- Pharmacotherapy may result in adverse drug reactions
- A high-risk patient is prescribed a statin:
 - The short-term (6-month to 1-year) likelihood the patient will continue to take the drug is approximately 50-60%
 - The long-term likelihood ranges between 15-50%
 - Primary prevention << Secondary prevention

J Intern Med. 1997;241:317-325.
JAMA. 2002 Jul 24-31;288(4):462-7.
Clin Pharmacol Ther. 2003;74:1-8.

Adherence Strategy Examples



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- Educational Tools
 - Videos, apps, handouts
- Involvement of the patient in decision making
 - Identifying medication benefits
 - Employing motivational interviewing
 - Empowering patients through discussion of risk
- Regular, frequent follow-up
 - Reinforce adherence, identify barriers
- Simplifying taking medications:
 - Long-acting injectables may offer an adherence advantage
 - Pill boxes, blister packing, combination pills
 - Transitional care from hospital to home: meds to bedside
- Reminder systems:
 - Simple to complex

Which Strategies Work Best?



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- van Driel et al. Cochrane review (2016)
 - Evaluated 35 randomized, controlled studies of interventions designed to improve adherence to lipid-lowering therapy comprising over 925,000 patients
 - In a meta-analysis of 7 studies, patients receiving an intervention had greater adherence (OR 1.93, 95% CI 1.29-2.88) and improved lipid parameters over the short and long-term (> 6 mos)
 - Interventions that consistently showed improvement:
 - Reminder systems (telephone, calendar, technology)
 - Integrated multidisciplinary educational activities
 - Pharmacist-led interventions (counseling, follow-up, reinforcement, visits, etc.)
 - Interventions that were inconsistent:
 - Decision support systems
 - Drug-regimen simplification
 - Complex behavioral approaches
 - Administrative improvements
 - Large-scale pharmacy automated telephone intervention

Cochrane Database Syst Rev. 2016 Dec 21;12:CD004371

Which Strategies Work Best?



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- Viswanathan et al. systematic review (2012)
 - Evaluated 62 trials of interventions designed to improve adherence to medications for chronic diseases
 - Identified general benefit across disease states for:
 - Reducing out-of-pocket expenses
 - Case management
 - Patient education with behavioral support

Ann Intern Med. 2012;157:785-795

How Pharmacists Can Help



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- Partner with community pharmacists for first-line detection and troubleshooting of adherence issues
 - Are patients refilling prescriptions on time?
 - Are patients unable to afford prescribed therapy?
 - Utilize community pharmacists for follow-up if no dedicated clinic infrastructure to address adherence
 - Automatic refills, reminder calls/texts, packaging, etc.
 - Synchronize and simplify medication refills

sitaGLIPtin (JANUVIA) 50 MG tablet

Dose: **50 mg** Route: **Oral**
Dispense Quantity: **30** Refills: **0**
tablet

Dispense History

Date	Type	Origin	Status	Quantity	Day Supply	Patient Charge	Product	Pharmacy
03/22/17	First Fill	Electronic	Ready to Dispense	30 tablet	30	\$21.15	JANUVIA 50 MG tablet	UVA Barringer Retail Pharmacy

How Pharmacists Can Help



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- Utilization of a pharmacist in-clinic
 - Detailed medication history
 - Dedicated follow-up/time to improving adherence on a patient-specific basis
 - Medication management through collaborative practice or state licensure
- Utilization of pharmacists in-hospital
 - Pharmacists are in one of the best positions to identify medication changes pre- and post- hospitalization and articulate these to the patient
 - Get an early start on medication education
 - If possible, partner with outpatient pharmacies to dispense and educate patients before they are discharged

How Can The System Be Better?



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- There isn't a "silver bullet" for adherence and each patient must be approached as an individual
- Promote healthcare models that enable financial viability of true population health so that primary care offices can dedicate resources to adherence
 - "Adherence champion"
 - In-office tools
- Promote full integration of electronic health records that include bi-directional pharmacy records
- Development of toolkits that promote best practices, resources, and tools for patient-specific scenarios
- Continued funding of novel research ideas that specifically explore improvement in cholesterol adherence, utilizing a patient-specific approach
 - What specific elements in multi-pronged interventions are effective?
- Continue exploring the role of technology in improving adherence