

Initial High-Intensity Statin Prescribing among Elderly Medicare Beneficiaries in the Context of the 2013 ACC/AHA Guideline Update

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Background

- Cardiovascular disease (CVD) is the leading cause of morbidity and mortality in the United States.
- Upon entering the market, statins quickly emerged as the first-line pharmaceutical treatment for hyperlipidemia in CVD prevention.
- In 2013, The American College of Cardiology (ACC) and American Heart Association (AHA) developed an improved set of guidelines for treating hyperlipidemia to reduce the risk of atherosclerotic cardiovascular disease (ASCVD).
- These guidelines recommend that adults over the age of 75 should not be initiated on high-intensity statins due to the increased risk of adverse effects.
- The impact of the AHA/ACC guidelines on prescribing patterns can be characterized using Medicare prescription claims data.

Objective

Objective: To examine trends in initial statin prescribing according to age and statin intensity after the implementation of the 2013 guidelines.

Methods

- Using the Chronic Conditions Data Warehouse (CCW) 5% sample, a cohort of Medicare beneficiaries with a new statin prescription between January 1, 2007 and December 31, 2014 was identified.
- Continuous enrollment in Medicare parts A, B and D was required ≥ 12 months pre- and post- the initial statin prescription.
- New statin users were defined as having no statin use 12 months prior to their index statin prescription.
- We examined trends in statin prescription intensity (high, moderate, and low) by age (65-75, 76-84, and 85+) and year (2007-2014).

Table 1: High- Moderate- and Low-Intensity Statin Therapy

High-Intensity Statin	Moderate-Intensity Statin	Low-Intensity Statin
Daily dose lowers LDL-C on average, by approximately $\geq 50\%$	Daily dose lowers LDL-C on average, by approximately 30% to $<50\%$	Daily dose lowers LDL-C on average, by $<30\%$
Atorvastatin (40†)-80 mg Rosuvastatin 20 (40) mg	Atorvastatin 10 (20) mg Rosuvastatin (5) 10 mg Simvastatin 20-40 mg Pravastatin 40 (80) mg Lovastatin 40 mg Fluvastatin XL 80 mg Fluvastatin 40 mg bid Pitavastatin 2-4 mg	Simvastatin 10 mg Pravastatin 10-20 mg Lovastatin 20 mg Fluvastatin 20-40 mg Pitavastatin 1 mg

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Results

- A cohort of 138,217 statin users who met the inclusion criteria was identified.
- The majority of beneficiaries are receiving moderate intensity statins.
- From 2007-2011, the proportion of low-intensity statin users increased from ~16% to ~26% in all age categories.
- Over that timeframe, moderate-intensity statin use decreased from ~77% to ~67%.
- From 2007-2011, approximately ~6% of all initial statin prescriptions were high intensity.
- From 2012-2014, this number increased from ~9% to ~16%.

Table 2: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 65-75

Intensity	2007 (n=12,920)	2008 (n=11,813)	2009 (n=10,456)	2010 (n=8,759)	2011 (n=8,048)	2012 (n=7,833)	2013 (n=8,089)	2014 (n=9,998)
Low	15%	19%	22%	23%	26%	25%	24%	21%
Moderate	78%	75%	73%	71%	68%	66%	65%	64%
High	7%	6%	5%	5%	6%	9%	11%	15%

Table 3: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 76-84

Intensity	2007 (n=8,935)	2008 (n=7,971)	2009 (n=6,553)	2010 (n=4,936)	2011 (n=4,294)	2012 (n=3,794)	2013 (n=3,101)	2014 (n=3,687)
Low	16%	19%	23%	23%	26%	27%	24%	20%
Moderate	77%	75%	72%	71%	68%	64%	64%	63%
High	7%	6%	5%	5%	6%	9%	12%	16%

Table 4: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 85+

Intensity	2007 (n=3,031)	2008 (n=2,892)	2009 (n=2,587)	2010 (n=1,990)	2011 (n=1,902)	2012 (n=1,698)	2013 (n=1,377)	2014 (n=1553)
Low	18%	21%	23%	24%	28%	29%	24%	21%
Moderate	76%	73%	70%	71%	66%	62%	64%	63%
High	6%	6%	7%	6%	6%	9%	12%	16%

Chart 1: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 65-75

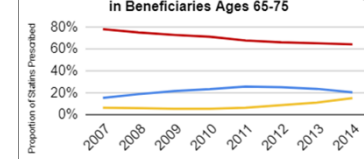


Chart 2: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 76-84

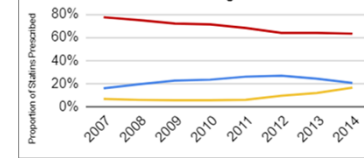
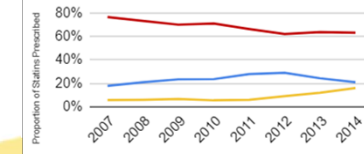


Chart 3: Trends in Initial Statin Intensity Prescribing in Beneficiaries Ages 85+



References

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