



Analyses Of PCSK9 Inhibitor Prescription Rejection Rates Demonstrate Significant Access Barriers For Appropriate Patients

March 19, 2017

Results From Two Studies Show Approximately 80 Percent of Prescription Claims in the U.S. Are Initially Rejected No Major Differences in Patient Characteristics Between Those Approved and Those Denied Access to a PCSK9 Therapy by Payers

Data Presented at ACC.17 Provide Further Insights Into Patient Barriers for Accessing PCSK9 Inhibitors

THOUSAND OAKS, Calif., March 19, 2017 /PRNewswire/ -- Amgen (NASDAQ:AMGN) today announced new data from two studies that showed that for appropriate patients (on-label) in the U.S., the majority of prescription claims for PCSK9 inhibitors, such as Repatha® (evolocumab), were initially rejected. Additionally, one of the studies showed no major differences in patient characteristics across those approved and denied, suggesting a utilization management process that is not driven by any observable clinical criteria. The studies were presented at the American College of Cardiology 66th Annual Scientific Session (ACC.17).

"While it is important to ensure that PCSK9 inhibitors are used in appropriate cases, our data suggest that the current approval process is lengthy and highly variable by payer. High initial rejection and slow approval rates may be preventing patients who could truly benefit from getting these drugs," said Ann Marie Navar, M.D., Ph.D., assistant professor of medicine at the Duke Clinical Research Institute and lead study investigator. "This study highlights the need to better investigate the impact of policies around drug access on the utilization of novel therapies, including pricing, payments and reimbursement, and the approval process."

In a retrospective study presented today as Featured Clinical Research, researchers evaluating 45,029 new PCSK9 inhibitor prescription claims found an average of 79.2 percent were initially rejected across commercial and Medicare plans, and of those, 52.8 percent were ultimately rejected. Additionally, 34.7 percent of prescriptions were abandoned (unfilled) by the patient. Rejection rates varied by prescribing provider and payer ($p < 0.0001$). Of prescription claims submitted to commercial payers, 71.2 percent were ultimately rejected. Among prescription claims submitted to government payers, 40.0 percent were ultimately rejected. This analysis did not specifically look at the patient characteristics of those denied and approved. (Abstract 415-08)

"Individuals with familial hypercholesterolemia are by definition at high risk for heart attacks in the prime of their lives. PCSK9 inhibitors were developed and approved with FH patients in mind and yet, too often, they are being denied appropriate therapy for their genetic condition," said Katherine Wilemon, founder and chief executive officer of The FH Foundation. "All stakeholders in the health care arena need to live up to their responsibility to get the right treatments to the right patients."

Results of a second retrospective study of 44,234 new PCSK9 inhibitor prescription claims showed 83 percent of PCSK9 inhibitor prescription claims were initially rejected, and of those, 57 percent were ultimately rejected. Final rejection rates were higher in commercially insured patients (69.5 percent) compared to Medicare patients (42.3 percent). When comparing characteristics of approved and denied patients, there were no major differences in baseline statin use, statin intensity, ezetimibe use or history of co-medication use, including antiplatelet therapy, a clinical characteristic highly suggestive of atherosclerotic cardiovascular disease (ASCVD). (Abstract 1258-435)

"The similarities in clinical profiles between accepted and rejected patients suggest concerning inconsistencies in the approval-rejection process," said Seth Baum, M.D., president of the American Society for Preventive Cardiology and lead study investigator. "These results deepen concerns that without meaningful improvement in the burdensome processes and complex access issues, many of our high-risk ASCVD and FH patients with uncontrolled LDL cholesterol levels will continue to be denied or delayed access to a PCSK9 inhibitor, an important and approved treatment option."

In the U.S., there are approximately 11 million people with ASCVD and/or familial hypercholesterolemia (FH) who have uncontrolled levels of low-density lipoprotein cholesterol (LDL-C) over 70 mg/dL, despite treatment with statins or other cholesterol-lowering therapies.^{1,2}

Estimates based on these access restrictions and real world data suggest at least 100,000 heart attacks and strokes could have been avoided last year in the U.S. alone if all of the appropriate high-risk patients were actually treated with Repatha.^{3,4}

Amgen is committed to providing personalized support services for patients and providers in the U.S. through its RepathaReady™ program. RepathaReady is a comprehensive suite of services to help patients and providers, including a Repatha co-pay card for eligible commercial patients, insurance coverage support and injection training.

Amgen also provides patient assistance for its medicines marketed in the U.S. in a variety of ways, including free medicines through The Amgen Safety Net Foundation for qualifying individuals with no or limited drug coverage.

Payer policies that restrict the ability of appropriate patients to access medicines are not limited to PCSK9 inhibitors. Other organizations have recently highlighted concerns with payer utilization management practices, including the [American College of Cardiology](#) and the [American Medical Association](#) along with a coalition of 16 other organizations.

About Repatha® (evolocumab)

Repatha® (evolocumab) is a human monoclonal antibody that inhibits proprotein convertase subtilisin/kexin type 9 (PCSK9). Repatha binds to PCSK9 and inhibits circulating PCSK9 from binding to the low-density lipoprotein (LDL) receptor (LDLR), preventing PCSK9-mediated LDLR degradation and permitting LDLR to recycle back to the liver cell surface. By inhibiting the binding of PCSK9 to LDLR, Repatha increases the number of LDLRs available to clear LDL from the blood, thereby lowering LDL-C levels.⁵

Repatha is approved in more than 40 countries, including the U.S., Japan, Canada and in all 28 countries that are members of the European Union.

Applications in other countries are pending.

U.S. Repatha Indication

Repatha[®] is indicated as an adjunct to diet and:

- Maximally tolerated statin therapy for treatment of adults with heterozygous familial hypercholesterolemia (HeFH) or clinical atherosclerotic cardiovascular disease (ASCVD), who require additional lowering of low-density lipoprotein cholesterol (LDL-C)
- Other LDL-lowering therapies (e.g., statins, ezetimibe, LDL apheresis) in patients with homozygous familial hypercholesterolemia (HoFH) who require additional lowering of LDL-C

The effect of Repatha[®] on cardiovascular morbidity and mortality has not been determined.

The safety and effectiveness of Repatha[®] have not been established in pediatric patients with HoFH who are younger than 13 years old.

The safety and effectiveness of Repatha[®] have not been established in pediatric patients with primary hyperlipidemia or HeFH.

Important U.S. Safety Information

Contraindication: Repatha[®] is contraindicated in patients with a history of a serious hypersensitivity reaction to Repatha[®].

Allergic reactions: Hypersensitivity reactions (e.g., rash, urticaria) have been reported in patients treated with Repatha[®], including some that led to discontinuation of therapy. If signs or symptoms of serious allergic reactions occur, discontinue treatment with Repatha[®], treat according to the standard of care, and monitor until signs and symptoms resolve.

Adverse reactions: The most common adverse reactions (>5% of Repatha[®]-treated patients and more common than placebo) were: nasopharyngitis, upper respiratory tract infection, influenza, back pain, and injection site reactions.

In a 52-week trial, adverse reactions led to discontinuation of treatment in 2.2% of Repatha[®]-treated patients and 1% of placebo-treated patients. The most common adverse reaction that led to Repatha[®] treatment discontinuation and occurred at a rate greater than placebo was myalgia (0.3% versus 0% for Repatha[®] and placebo, respectively).

Adverse reactions from a pool of the 52-week trial and seven 12-week trials:

Local injection site reactions occurred in 3.2% and 3.0% of Repatha[®]-treated and placebo-treated patients, respectively. The most common injection site reactions were erythema, pain, and bruising. The proportions of patients who discontinued treatment due to local injection site reactions in Repatha[®]-treated patients and placebo-treated patients were 0.1% and 0%, respectively.

Allergic reactions occurred in 5.1% and 4.7% of Repatha[®]-treated and placebo-treated patients, respectively. The most common allergic reactions were rash (1.0% versus 0.5% for Repatha[®] and placebo, respectively), eczema (0.4% versus 0.2%), erythema (0.4% versus 0.2%), and urticaria (0.4% versus 0.1%).

Neurocognitive events were reported in less than or equal to 0.2% in Repatha[®]-treated and placebo-treated patients.

In a pool of placebo- and active-controlled trials, as well as open-label extension studies that followed them, a total of 1,988 patients treated with Repatha[®] had at least one LDL-C value <25 mg/dL. Changes to background lipid-altering therapy were not made in response to low LDL-C values, and Repatha[®] dosing was not modified or interrupted on this basis. Although adverse consequences of very low LDL-C were not identified in these trials, the long-term effects of very low levels of LDL-C induced by Repatha[®] are unknown.

Musculoskeletal adverse reactions were reported in 14.3% of Repatha[®]-treated patients and 12.8% of placebo-treated patients. The most common adverse reactions that occurred at a rate greater than placebo were back pain (3.2% versus 2.9% for Repatha[®] and placebo, respectively), arthralgia (2.3% versus 2.2%), and myalgia (2.0% versus 1.8%).

Homozygous Familial Hypercholesterolemia (HoFH): In 49 patients with homozygous familial hypercholesterolemia studied in a 12-week, double-blind, randomized, placebo-controlled trial, 33 patients received 420 mg of Repatha[®] subcutaneously once monthly. The adverse reactions that occurred in at least 2 (6.1%) Repatha[®]-treated patients and more frequently than in placebo-treated patients, included upper respiratory tract infection (9.1% versus 6.3%), influenza (9.1% versus 0%), gastroenteritis (6.1% versus 0%), and nasopharyngitis (6.1% versus 0%).

Immunogenicity: Repatha[®] is a human monoclonal antibody. As with all therapeutic proteins, there is a potential for immunogenicity with Repatha[®].

Please contact Amgen Medinfo at 800-77-AMGEN (800-772-6436) or 844-REPATHA (844-737-2842) regarding Repatha[®] availability or find more information, including full [Prescribing Information](#), at www.amgen.com and www.Repatha.com.

About Amgen in the Cardiovascular Therapeutic Area

Building on more than three decades of experience in developing biotechnology medicines for patients with serious illnesses, Amgen is dedicated to addressing important scientific questions to advance care and improve the lives of patients with cardiovascular disease, the leading cause of morbidity and mortality worldwide.⁶ Amgen's research into cardiovascular disease, and potential treatment options, is part of a growing competency at Amgen that utilizes human genetics to identify and validate certain drug targets. Through its own research and development efforts, as well as partnerships, Amgen is building a robust cardiovascular portfolio consisting of several approved and investigational molecules in an effort to address a number of today's important unmet patient needs, such as high cholesterol and heart failure.

About Amgen

Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology.

Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

For more information, visit www.amgen.com and follow us on www.twitter.com/amgen.

Forward-Looking Statements

This news release contains forward-looking statements that are based on the current expectations and beliefs of Amgen. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including estimates of revenues, operating margins, capital expenditures, cash, other financial metrics, expected legal, arbitration, political, regulatory or clinical results or practices, customer and prescriber patterns or practices, reimbursement activities and outcomes and other such estimates and results. Forward-looking statements involve significant risks and uncertainties, including those discussed below and more fully described in the Securities and Exchange Commission reports filed by Amgen, including our most recent annual report on Form 10-K and any subsequent periodic reports on Form 10-Q and Form 8-K. Unless otherwise noted, Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

No forward-looking statement can be guaranteed and actual results may differ materially from those we project. Our results may be affected by our ability to successfully market both new and existing products domestically and internationally, clinical and regulatory developments involving current and future products, sales growth of recently launched products, competition from other products including biosimilars, difficulties or delays in manufacturing our products and global economic conditions. In addition, sales of our products are affected by pricing pressure, political and public scrutiny and reimbursement policies imposed by third-party payers, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment. Furthermore, our research, testing, pricing, marketing and other operations are subject to extensive regulation by domestic and foreign government regulatory authorities. We or others could identify safety, side effects or manufacturing problems with our products after they are on the market. Our business may be impacted by government investigations, litigation and product liability claims. In addition, our business may be impacted by the adoption of new tax legislation or exposure to additional tax liabilities. If we fail to meet the compliance obligations in the corporate integrity agreement between us and the U.S. government, we could become subject to significant sanctions. Further, while we routinely obtain patents for our products and technology, the protection offered by our patents and patent applications may be challenged, invalidated or circumvented by our competitors, or we may fail to prevail in present and future intellectual property litigation. We perform a substantial amount of our commercial manufacturing activities at a few key facilities and also depend on third parties for a portion of our manufacturing activities, and limits on supply may constrain sales of certain of our current products and product candidate development. In addition, we compete with other companies with respect to many of our marketed products as well as for the discovery and development of new products. Discovery or identification of new product candidates cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate will be successful and become a commercial product. Further, some raw materials, medical devices and component parts for our products are supplied by sole third-party suppliers. Certain of our distributors, customers and payers have substantial purchasing leverage in their dealings with us. The discovery of significant problems with a product similar to one of our products that implicate an entire class of products could have a material adverse effect on sales of the affected products and on our business and results of operations. Our efforts to acquire other companies or products and to integrate the operations of companies we have acquired may not be successful. We may not be able to access the capital and credit markets on terms that are favorable to us, or at all. We are increasingly dependent on information technology systems, infrastructure and data security. Our stock price is volatile and may be affected by a number of events. Our business performance could affect or limit the ability of our Board of Directors to declare a dividend or our ability to pay a dividend or repurchase our common stock.

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To view the original version on PR Newswire, visit: <http://www.prnewswire.com/news-releases/analyses-of-pcsk9-inhibitor-prescription-rejection-rates-demonstrate-significant-access-barriers-for-appropriate-patients-300425865.html>

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