PPIs Are Therapeutically Interchangeable and Ideal for a Managed Care Intervention Such as Therapeutic MAC

Mabasa and Ma recently published a pharmacy claims database review on the effect of a therapeutic MAC intervention for proton pump inhibitors (PPIs). A therapeutic MAC program establishes a therapeutic maximum allowable cost for a drug category and, unless medical necessity exists, requires patients to pay the drug cost difference when a nonpreferred agent is dispensed. In their Canadian employer group, rabeprazole 10 mg daily was the preferred agent, costing Can 71¢ daily. They found a 22.1% reduction in drug cost per patient per year (PMPY) in the intervention therapeutic MAC group (from Can $357 to Can $278 PMPY) versus a 4.1% increase in the comparison group (from Can $293 to Can $305 PMPY).

In response to this study, Peter Wahlqvist, an employee of AstraZeneca, the manufacturer of esomeprazole, has written a letter to the editors of JMCP to highlight “a number of fundamental flaws.” He rightfully points out that the quality of care delivered was not measured, a common shortcoming of the use of administrative claims data. As a clinician, such omissions are very concerning and cause me to immediately cast doubt; can such a study be a “priority update” that would cause me to change my present practice?

Fortunately for Wahlqvist, me, and our readers, other investigators have addressed the quality question regarding the impact of managing PPI agents. Not only has JMCP Editor-in-Chief Frederic Curtiss reminded us of the 2005 U.S. government Agency for Healthcare Research and Quality (AHRQ) conclusions regarding the therapeutic equivalency of all PPI medications but also others have examined quality outcomes for managing PPIs and H-2 blockers. The Georgia Medicaid program implemented a prior authorization (PA) intervention for PPIs on February 1, 2002. The PA criteria were based on diagnosis and risk assessment. Prescribers or pharmacists could submit PA requests by telephone (immediate response), fax (24-hour response time), or mail (48-hour response time). The time required to complete PA applications was not reported. The approval rate for PA requests was 95.1%. Per-member-per-month (PMPM) utilization of PPIs dropped 91% in the first month after implementation, and H-2 blocker utilization increased by 223%, (P < 0.001 for both). Total spending fell by 70.1%, from $44.1 million in the 12-month preperiod to $13.2 million in the 12-month postperiod, while total spending on H-2 blockers rose from $6.0 million to $13.5 million. PPIs accounted for 88% of total antisecretory spending in the preperiod and 49% in the postperiod. PMPM expenditures fell 49%, from $3.44 to $1.74, representing savings for the state of $23.4 million in one year. These savings were reported after subtraction of the $20 administrative fee per PA request processed by the pharmacy benefits manager (PBM). Regarding clinical outcomes post-PA implementation, no evidence of an increase in the use of gastrointestinal (GI)-related endoscopies from baseline to follow-up was found among PPI users (14.0% vs. 10.9%), H-2 blocker users (8.3% vs. 7.3%), or nonusers of either PPIs or H-2 blockers (8.5% vs. 5.6%).

A group from Kaiser Permanente of Northern California performed a retrospective 2-year study of 13,971 adults who received a new prescription for a PPI or H-2 blocker. No claims for GI-related diagnoses/endoscopies or medications were found in the preceding 6 months. They found no statistically significant difference for patients who initially received PPI therapy versus H-2 blockers, regarding frequency of endoscopy, physician office visits, upper GI imaging, or hospital admission for GI disease. Drug costs were 4.2 times higher (P < 0.001) for patients who initially received PPI therapy than for patients who initially received H-2 blocker therapy; while nondrug costs (overall or by diagnosis) were equivalent. The importance of managing the initial treatment choice is borne out by the fact that, of patients who initially received H-2 blockers, 87.4% continued this therapy, while 90.9% of patients who initially received PPI therapy continued PPI therapy.

So while we have discovered evidence that quality of care seems equivalent for patients under active formulary management, what is the proof put forward that therapeutic MAC programs for PPIs may adversely affect patients? Wahlqvist cites a position paper posted on www.badgut.com that describes the British Columbia Pharmacare experience with forced therapeutic substitution of the preferred agent for the patient’s current PPI. This report did not provide a quantitative analysis; rather, it relied on anecdotal qualitative case examples. I was reminded of a late-night infomercial after reading the “personal testimony” style of the report. Of note, the therapeutic MAC study by Mabasa did not require forced substitution, making application of the suspect report even more dubious.

Wahlqvist did bring up a reasonable concern regarding the source of drug savings in the Mabasa study, namely two-thirds savings was due to a decline in use of PPIs. He pointed out that many patients could potentially be harmed by reducing their medication; however, this question has been asked and answered. Inodami et al. in 2001 published a trial on the success of step-down therapy for patients taking PPIs. They found that 42% of patients could safely taper down to H-2 blockers or no prescription agents and still control their reflux symptoms. Additionally, on-demand or as-needed use of PPIs is expanding and is consistent with the patient behavior that I have commonly observed in stable patients; it also can successfully and safely reduce PPI consumption.

The concluding point written by Wahlqvist dealt with the “unwarranted” focus of payers on the cost of medication. Citing his own research, published in abstract form only, he asserts that 17% of gastroesophageal reflux disease (GERD)-related costs are due to medications, while the other 83% are due to physician appointment costs, procedures, workers’ compensation, short- and long-term disability, and decreased work productivity.
He states, “These issues are clearly not addressed by a MAC program that focuses on drug costs alone . . . (c)sequently, drug costs for PPIs should probably not be the primary target for interventions from an employer perspective.” Assuming for the moment that the claim of GERD-related drug costs is only 17% of all GERD expenditures, why is focusing on reducing this figure unreasonable? PPIs are typically in the top 5 agents for PBM and health plan drug expenditures and are a modifiable cost. Why not modify what can be modified? I draw an analogy with my cardiac patients: I cannot change their gender, age, or family history, but we can and should improve their blood pressure, cholesterol, sugar, and tobacco use. Aiming at modifiable drug costs for PPIs should be a primary target.

As an aside, it is important to be aware of national dyspepsia guidelines. The U.K. Scottish Intergalleric Guidelines Network (SIGN) recommends first-line use of H-2 blockers for dyspepsia, while the American Gastroenterology Association (AGA) promotes PPIs. The AGA guideline combined 3 studies and examined 1,267 patients with uninvestigated dyspepsia; they found PPI therapy was more effective than H-2 blockers at achieving complete patient relief in individual patients (relative risk, 0.64; 95% confidence interval [CI], 0.58-0.72), with a number needed to treat (NNT) of 5 (95% CI, 3-8). Although not all studies cited were blinded, the study comparing lansoprazole 30 mg daily versus ranitidine 150 mg twice daily was double-blind and randomized and found complete relief of night symptoms in 81% versus 65% (P <0.01). The magnitude of these results was representative of the other studies. The AGA recommends PPIs as first-line therapy but, of note, did not cite any cost-effectiveness data to support this decision—only efficacy data.

Perhaps Goeree et al. captured the truth best regarding first-line dyspepsia agents in their long-term management cost-effectiveness/utility study. Although they concluded that the optimal strategy for managing patients with moderate-to-severe heartburn symptoms is to treat with a PPI, followed by maintenance therapy with an H-2 blocker, reality is that “the best way of managing patients with heartburn depends on how much society is willing to pay to achieve health improvements.” Continuous PPIs may offer higher maintenance efficacy (Ferrari Formula 1 equivalent), but H-2 blockers or on-demand PPIs (Ford Mustang) may be a competent substitute to get the job done (transport you to work and home) at more reasonable prices.

In the final analysis, a therapeutic MAC program that can safely and effectively lower high-dollar costs in a class such as PPIs is a welcome “priority update”; if patients buy into pharmaceutical advertising and want a Ferrari when the Ford Mustang suffices, then they may have to pay for that privilege. Although Wahlqvist has raised sincere questions about the Mabasa study, evidence has been presented to assuage concerns. Patient outcomes and quality of care under active management of dyspepsia agents has been measured in other studies and shown to not be harmful. Aiming at dyspepsia drugs costs should be a primary target in our effort to balance costs while helping our patients.

Brian K. Crownover, MD, FFAFP,
Lt. Col., USAF, MC
Family Medicine Residency Director, Eglin AFB
JMCP Associate Editor
brian.crownover@eglin.af.mil
bcrownover@amcp.org

DISCLOSURE
Crownover is a board-certified family physician assigned to Eglin AFB Florida, where he serves as Family Medicine Residency program director, HQ Air Armament Center. The opinions and assertions contained herein are the private views of the editor and are not to be construed as official or as reflecting the views of any organization, including the U.S. Air Force medical department or the U.S. Air Force. The editor discloses no potential bias or conflict of interest relating to this editorial.

REFERENCES
3. Wahlqvist P. Employers need to have a wider horizon than drug costs alone when considering the implementation of health care intervention programs [letter]. J Manag Care Pharm. 2006;12(7):581-82.
Editorial


---

Pfizer, Inc. discovers, develops, manufactures, and markets leading prescription medicines for humans and animals and many of the world’s best-known consumer brands. We have an unparalleled opportunity for a Pharmacist Clinical Education consultant to join our winning team in Long Beach, CA:

**Pharmacist Clinical Education Consultant**

Develop and maintain relationships with key health care professionals and administrators to provide access for field force. Develop and maintain relationships with Colleges of Pharmacy and seek a faculty appointment. Participate in committees, task forces, special assignments, and professional related organizations (i.e., ASHP, AMCP, APHA, etc.). Work collaboratively with customers to develop solutions to meet their healthcare needs. Develop clinical programs that aid in demonstrating the value of drug therapy and pharmacy practice. Develop and present the results of DTEs or related projects through posters, presentations, publications and symposia. Develop and implement business plan that is consistent with goals/objectives of the TACU and that of USP. Participate in and contribute to the development and accomplishment of TACU and regional objectives. Provide educational support and assistance to the local field force in topics related to Pfizer’s products, competitor products, pharmaeconomics, formulary decision-making and other related issues.

Candidates should have a Pharmacy degree from an accredited College of Pharmacy, 5+ years of clinical experience in hospital or pharmacy work, and a current Pharmacist license. Residency and/or management experience a plus. Candidates must be willing to travel.

**Pfizer, Inc.** offers company paid training, and excellent salary ($100k+ on experience), bonus, company vehicle, full benefits, growth opportunities and much more! Relocation assistance is also available for this position. Please visit our website at www.pfizer.com and apply to job requisition #055698. EOE