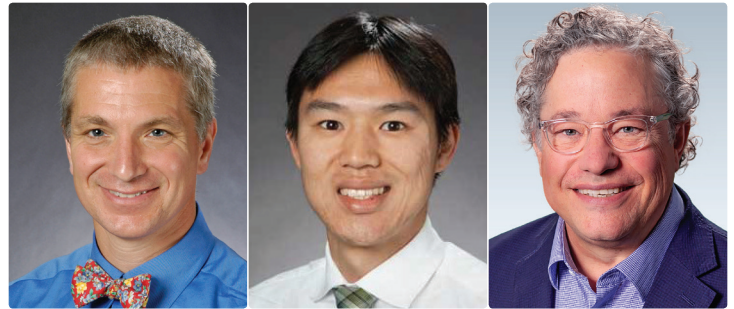


Virginia Mason Medical Center

Background

Virginia Mason Medical Center is a subsidiary of Virginia Mason Health System. It includes Virginia Mason Hospital in Seattle, Bailey-Boushay House in Seattle and a regional network of outpatient medical facilities in Bainbridge Island, Bellevue, Edmonds, Federal Way, Issaquah, Kirkland, Lynnwood and Seattle (downtown and University Village).¹



Problem

Upon recognition of underperformance on the Washington Health Alliance (WHA) Community Checkup Report measure for acute bronchitis antibiotic prescriptions, Virginia Mason Medical Center clinical leaders implemented a *Choosing Wisely*[®] initiative to reduce antibiotic overuse.

Solution

Virginia Mason utilized a multifaceted approach to reduce potentially inappropriate antibiotic prescriptions for viral respiratory infections. Applying the Kotter 8 Step Model for Change,^{2,3} Kim Pittenger, MD, Director of Quality and Innovation for Primary Care, piloted this antibiotic overuse reduction initiative through academic detailing of all institutional primary care providers in Virginia Mason's network, tracking and benchmarking antibiotic prescription rates for acute respiratory infections through a data report.

Employing external guidelines and the *Choosing Wisely* campaign as the benchmarks for best practice, Dr. Pittenger used chart review data to engage in conversations with individual physicians and practices, emphasizing the importance of antibiotic reduction. Virginia Mason gave clinicians unblinded data comparing their performance with their peers, enabling them to learn from positive deviants. Data was also presented to physician leaders at all nine of Virginia Mason's medical centers.

Virginia Mason established an acute respiratory illness (ARI) care pathway to offer nurse phone care instead of office visits for patients calling to schedule visits for ARI-related symptoms. It later developed a documentation template to guide providers to choose evidence-based care for patients presenting to the clinic for ARIs.

The intervention occurred among 54,283 acute upper respiratory infection episodes. Post intervention, nurse phone consultation involved 13.8% of care episodes. Results included: "16.5% absolute decrease in antibiotic rate after adjustment, 8.3% episodes not requiring any provider visit post intervention and single institution cost savings to payers exceeding \$175,000."⁴ Virginia Mason went from 80% prescribing for acute bronchitis in the Washington State Health Alliance Report Card to one of the lowest among medical groups originally included in the denominator.

“We continue to see low rates of potentially inappropriate antibiotic prescribing when tracking our internal data, even with adding new providers throughout the department and implementing walk-in/urgent care at a few of our regional medical centers. The specifications we created as part of this work have formed the foundation for the Washington Health Alliance *Choosing Wisely* statewide specification,” said Norris Kamo, MD, MPP, Director of Quality and Innovation, Department of Primary Care.

Challenges

- **Dedicating ample time.** Virginia Mason is geographically diverse, with nine healthcare centers throughout Western Washington. Dr. Pittenger had to travel to each site. Physician leaders, particularly those implementing statewide initiatives, must allot significant time to piloting their implementation.
- **Improving physician-ingrained practice.** Virginia Mason leaders said it was difficult to convince physicians to reconsider outdated antibiotic prescribing practices. Generating quality data that identifies physician outliers is essential to creating behavior change.
- **Diagnostic Drift.** “We saw a shift in billing coding from ‘acute bronchitis’ ICD-9 codes to other respiratory infection codes, so we expanded the codes to include in the denominator population,” said Dr. Kamo.

Keys to Success

- **Generate quality data.** To successfully portray the need for overuse reduction, strong data is essential. “External benchmarks show that people care about this. That has to be coupled with internal data to depict to physicians that their practice can be improved,” said Craig Blackmore, MD, MPH, Director, Center for Health Care Improvement Science at Virginia Mason Medical Center.
- **Use the Kotter 8 Step Model for Change.** Outlined in the WHA *Choosing Wisely* Action Manual, the Kotter 8 Step Model for Change includes: “create a sense of urgency, build a guiding coalition, form a strategic vision and initiatives, enlist a volunteer army, enable action by removing barriers, generate short-term wins, sustain acceleration and institute change.” Utilizing behavioral frameworks aids in project outcomes.^{2,3}
- **Provide a pathway for patients to bypass a clinic visit and receive conservative care by phone.** Virginia Mason’s use of nurse phone care reduced both provider visits and antibiotic use.⁴
- **Identify clinical leaders and standardize new workflows and documentation templates throughout the department.** Key players are necessary to pilot and lead implementation of overuse reduction projects. “Understanding that physicians collaborate well with one another, identifying a respected clinical leader to spread the word about implementation importance is essential,” said Dr. Blackmore. This helps to create a collegial environment where providers can learn best practices from one another and ultimately aids in sustainability.
- **Utilize institutional strengths and create a sustainability plan.** “Virginia Mason’s Production System is a quality improvement/standardized management approach structure which provides staff members with tools that ultimately serve as a mechanism to get things done,” said Dr. Blackmore. Virginia Mason continues to benchmark, track and trend performance to ultimately determine root causes of any negative trends. Results are reported annually.

Interventions

- Academic detailing
- Data feedback and discussion
- Pathway creation
- Nurse triage
- URI documentation template



Choosing Wisely® is an initiative of the ABIM Foundation.

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