CARRIAGE QUERI Program

Collaborating across VA to address antimicrobial resistance and healthcare-associated infections

The CARRIAGE QUERI partners with 4 National VA Program Offices, 1 VISN, and VA facilities and providers nationwide to enhance VA's ability to implement and disseminate evidence-based practices (EBPs), policies, and programs targeting **the improved use of antibiotics and the prevention of healthcare-associated infections.** Thus far, CARRIAGE has conducted 3 implementation/evaluation projects, 2 supplemental projects, and supported 5 additional evaluations in a partnership with CDC.

Partnering at an operational crossroads

In the US, more than three million illnesses and 48,000 deaths are caused by antibiotic-resistant bacteria *each year*, with an annual impact of $35 billion in excess health care costs.

VA is not immune to this growing threat to patient safety, and several VA operational and research groups have responded by developing practices to address antibiotic misuse and infection prevention. CARRIAGE is partnering with these groups to enhance and disseminate several of these strategies unified around the common goal of arresting—and potentially reversing—the spread of antimicrobial resistance in VA facilities and beyond:

⇒ National Infectious Diseases Service

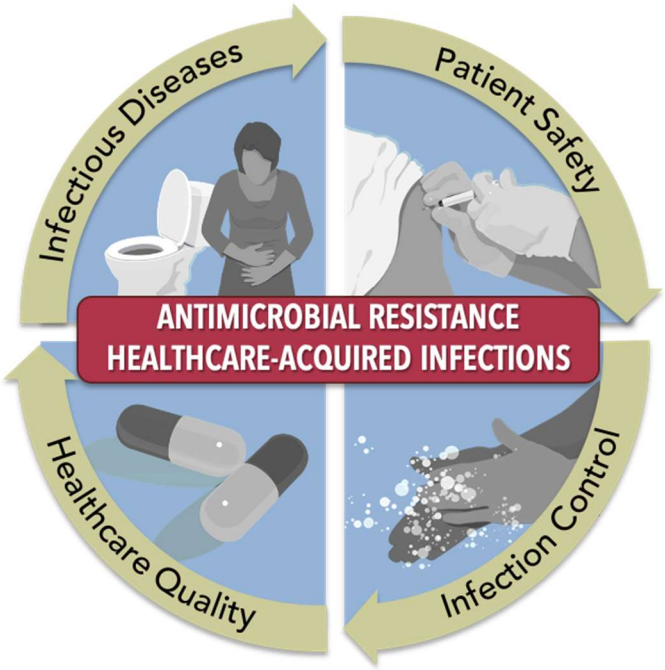
⇒ MDRO Program Office

⇒ Antimicrobial Stewardship Task Force

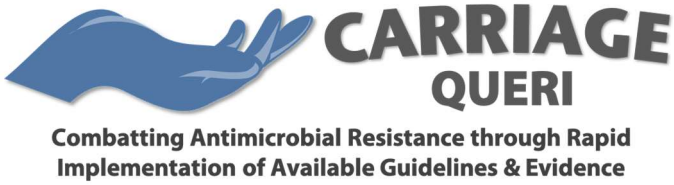
⇒ National Center for Patient Safety

⇒ VISN 23

CARRIAGE is specifically tailored to support and facilitate the priority goals of our organizational partners.



*Antimicrobial resistance is a crisis that uniquely stands at the operational crossroads of **infectious diseases**, **infection control and prevention**, **public health**, **healthcare quality**, and **patient safety**. As a result, it spans diverse clinical domains and is of key interest to multiple VA operational partners and program offices.*



Targeting the processes that contribute to the development and spread of resistance

CARRIAGE employs rapid, cross-cutting, and interdisciplinary approaches that target the health care processes that contribute to the development and spread of antimicrobial resistance. Our work includes **three primary projects** utilizing **three key implementation strategies** guided by established frameworks such as the **Consolidated Framework for Implementation Research**:

*Foster **improved hand hygiene** practice by repairing the broken audit-and-feedback mechanism in VA acute-care hospitals in a VISN-wide QI project*

***Audit and Feedback** to provide facilitated feedback to clinicians about their performance on a recurring basis*

*Promote **judicious inpatient antibiotic prescribing** through a novel antibiotic self-stewardship "timeout" project evaluating the ongoing need for empiric therapy*

***Provider Education**, such as an observed education program for the hand hygiene project, to enhance and complement other implementation strategies*

***Enhance the implementation of national VA guidelines** to detect and prevent the spread of carbapenem-resistant Enterobacteriaceae (CRE) in VA hospitals*

***Facilitation** using a blended approach which includes both internal and external facilitation to enhance uptake and mitigate the limitations of each strategy*

Nationwide implementation and dissemination

CARRIAGE's key impacts include:

⇒ A VISN-wide Audit-and-Feedback strategy to improve hand hygiene observation practice

⇒ Antibiotic timeout templates implemented at multiple VA acute-care facilities to improve de-escalation of unnecessary antibiotic therapy

⇒ **Over 22 presentations and publications** including a series of articles proposing a formal research agenda and roadmap for VA infection prevention and antimicrobial stewardship

⇒ A rapid response project with the VA MDRO Program Office to assess the impact of relaxing MRSA contact isolation guidelines due to COVID-19

⇒ A collaboration with CDC on a **15-hospital practice-based research network** that deployed 8 additional studies, where CARRIAGE investigators tailored and adapted new interventions and conducted 13 virtual education/training sessions across all 15 sites

For more information, check out:
https://www.queri.research.va.gov/

If you would like to learn more or partner with us, please contact our Program Coordinator, Josh Judd, at joshua.judd2@va.gov

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