PROGRAM PROFILE

E-Consults Bridge to Interdisciplinary Team Care for Rural Appalachian Veterans With Chronic Pain and Opioid Use Disorder

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Background: Co-occurring chronic pain and opioid use disorder (OUD) is often managed by primary care practitioners (PCPs) for rural veterans. Interdisciplinary teams (IDTs) and e-consults have shown promise at the US Department of Veterans Affairs for supporting PCPs. This quality improvement study sought to examine the impact of an e-consult service on pain care trajectories, determine the feasibility and reach of the RESTORE IDT appointment program, and determine the impact of RESTORE on engagement in evidence-based care.

Observations: A retrospective chart review was conducted at the Salem Veterans Affairs Healthcare System that primarily serves rural veterans in Central Appalachia. Veterans at risk for OUD with co-occurring chronic pain whose PCP placed an e-consult during a 1-year period were included. The following data were extracted from the electronic health record: demographics, referrals, treatment plans, and treatment engagement. Results were summarized using descriptive statistics. Of the 77 e-consults placed in 1 year, 75% were placed by PCPs, and 83% were requests for recommendations on medication adjustments. The reviewing pharmacist referred 19 veterans to RESTORE; of those, 17 (89%) agreed to be referred to a pain IDT specializing in nonpharmacologic pain management and 13 (68%) agreed to initiate buprenorphine.

Conclusions: This study demonstrated preliminary support for the feasibility of e-consults to increase engagement in evidence-based treatments. Additional research is needed.

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Fed Pract. 2025;42(9). Published online September 15. doi:10.12788/fp.0618

Rural veterans are prescribed long-term opioid therapy for chronic pain at higher rates than urban veterans, increasing their risk of developing opioid use disorder (OUD).[1,2] Veterans with co-occurring OUD and chronic pain have more severe health concerns, as well as higher rates of homelessness, psychoactive drug misuse, and mental health disorders, compared to veterans with either chronic pain or OUD alone.[3] Interdisciplinary team (IDT) care is recommended for both chronic pain and OUD.[4,5] Rural veterans with co-occurring chronic pain and OUD, however, are often unable to access IDTs due to long travel and wait times. As a result, these rural veterans often receive care from primary care practitioners (PCPs) who lack training in pain management and addiction and have low confidence in their ability to provide optimal treatment.[6,7]

In the Veterans Health Administration, electronic consultations (e-consults) provide support to PCPs by recommending evidence-based approaches such as buprenorphine for OUD and pain IDTs for chronic pain.[5,8] However, research on the use of e-consults to connect to IDT care for co-occurring chronic pain and OUD are lacking, as well as studies on IDTs using innovative methods (eg, shared appointments) to overcome treatment barriers (eg, multiple appointments) for rural veterans at higher risk for co-occurring OUD and chronic pain.

This quality improvement study sought to determine the feasibility and impact of a pharmacy e-consult service that provided pain medication recommendations and subsequent referrals to RESTORE, a shared appointment program with an IDT, for assessment and treatment of chronic pain and OUD.

METHODS

This retrospective chart review was approved as nonresearch by the Institutional Review Board Chair at the Salem Veterans Affairs Healthcare System (SVAHS), a low-complexity medical center in Virginia that primarily serves a rural and highly rural Central Appalachian veteran population.

This study included veterans whose clinicians placed a pain medication e-consult requesting recommendations for medication adjustments and/or a referral to RESTORE from January 1, 2022, through January 6, 2023. Requests for services that

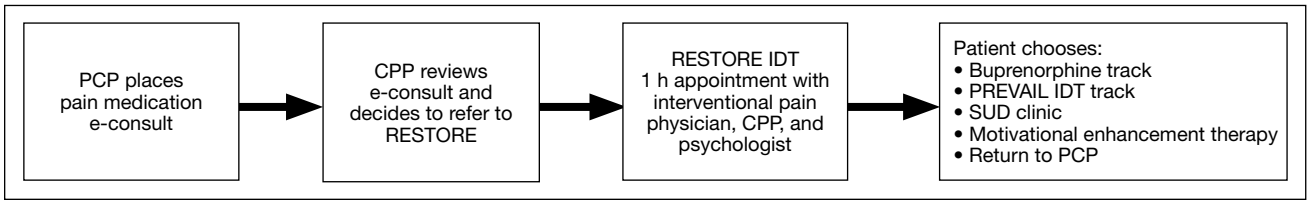

FIGURE 1. E-consult flow, RESTORE intervention, and treatment plan options.
Abbreviations: CPP, clinical pharmacist practitioner; IDT, interdisciplinary team; PCP, primary care practitioner; SUD, substance use disorder.

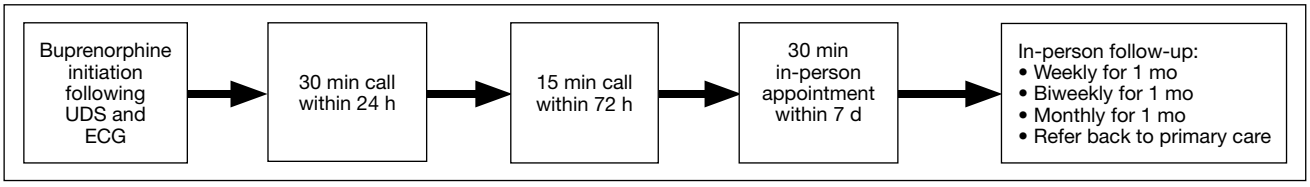

FIGURE 2. RESTORE Buprenorphine Track Overview.
Abbreviations: ECG, electrocardiogram; UDS, urine drug screen.

could not be provided through an e-consult were excluded (Figure 1). Veterans who had a pain medication e-consult were identified in the SVAHS electronic medical record (EMR). Data extracted from the EMR included demographics, referral source, reason for referral, RESTORE appointment attendance, OUD diagnosis made during the RESTORE initial evaluation, implementation of medication recommendations by the referrer within 6 months, engagement in ≥ 3 pain education classes, and a shared appointment with a pain IDT within 6 months. Data were entered into a REDCap database, and descriptive statistics summarized the results. Feasibility was assessed by use of the e-consult by PCPs, attendance at the RESTORE appointment, and OUD diagnosis by the RESTORE team.

RESTORE Intervention

A pain medication e-consult was followed by referral to a shared appointment with the RESTORE IDT, with subsequent referrals to a pain IDT for chronic pain management if the veteran was amenable.

Pain medication e-consults in the EMR prompted a chart review by a clinical pharmacist practitioner (CPP). Recommendations for changes to medication regimens were documented in the EMR. At completion of the e-consult, the referring clinician received an automated view alert.

Veterans (and a support person, if preferred) were seen in a 60-minute, face-to-face shared appointment which included a psychologist, CPP, and pain physician. The psychologist conducted an OUD diagnostic interview, provided diagnostic feedback, and used motivational interviewing to provide psychoeducation on the biopsychosocial model of chronic pain, the IDT approach to chronic pain, and an overview of pain IDT care locally available. A CPP and physician then described medication options available to address OUD, if applicable. Together, the IDT and patient used shared decision making to determine a comprehensive treatment plan that may include a referral to the SVAHS PREVAIL Center for Chronic Pain IDT track (PREVAIL IDT track), a referral to substance use care in the case of polysubstance use, or medication initiation.[9-11] If medication was prescribed, the patient was subsequently followed by the CPP through phone calls and face-to-face appointments at regularly scheduled intervals in coordination with the prescriber until they were stabilized. After stabilization, the prescription would be managed by their PCP (Figure 2). Veterans whose clinical condition changed significantly or worsened after returning to their PCP were invited to be reevaluated by the RESTORE team and restart care in that program. Individuals who were actively receiving RESTORE team care were discussed in a weekly care coordination meeting with all clinicians from both the PREVAIL and RESTORE teams.

Program Metrics

Pain medication e-consults were placed for 77 patients; 7 were excluded as inappropriate

TABLE. RESTORE Participant Demographics (N = 19)

Criteria	Results
Male sex, No. (%)	16 (84)
White race, No. (%)	17 (87)
Age, mean, (range), y	60.3 (30-91)
Diagnosed with opioid use disorder during RESTORE initial evaluation, No. (%)	10 (53)

referral requests. Seventy (83%) e-consults were placed by PCPs (Table). Fifty-seven referring PCPs (81%) implemented ≥ 1 medication recommendation and 41 (59%) implemented all recommendations within 6 months. CPPs referred 19 individuals to RESTORE due to concerns related to high risk. All attended the initial evaluation appointment with the RESTORE team, 17 (89%) agreed to be referred to PREVAIL IDT track for nonpharmacologic pain care, and 9 (53%) engaged with that care within 6 months. Of those who attended RESTORE, 7 patients (37%) initiated buprenorphine for OUD with 6 (86%) being prescribed buprenorphine for ≥ 6 months.

DISCUSSION

Most e-consults placed at SVAHS, which primarily serves a rural veteran population in Central Appalachia, resulted in veterans engaging in evidence-based treatment for co-occurring chronic pain and OUD. The use of e-consults and subsequent shared appointments with an IDT appears to be feasible, as the service was most often used by PCPs who often feel unequipped to manage chronic pain.[7] The attendance rate for the RESTORE appointments was notable given the typically poor follow-up for patients with OUD. It supports the feasibility of a shared appointment approach which may overcome frequent barriers to care in this vulnerable population (ie, time, transportation). By attending 1 appointment with all clinicians present as opposed to multiple appointments, veterans experience fewer barriers than attending multiple appointments. RESTORE continues to be offered as an active clinical service whose implementation is now supported by changes to SVAHS policies. Since this study was conducted, the number of patients seen weekly has doubled and will soon be tripled based on high demand from PCPs.

While this study was limited to 1 site, had a small sample size, and was limited in scope, its results suggest that future research is warranted. Future studies using a larger sample size utilizing both a randomized control trial design and qualitative methods are needed to answer critical questions such as the role of patient characteristics on treatment effectiveness and the impact of the RESTORE model on long-term OUD medication adherence, patients' perceptions and satisfaction, barriers to implementation, PCP confidence in providing pain care, and use of evidence-based nonpharmacologic pain management services.[12-14]

CONCLUSIONS

The results of this quality-improvement project suggest that e-consults may facilitate referrals to and patient follow-through with evidence-based treatment for co-occurring chronic pain and OUD among veterans living in rural communities in Central Appalachia who tend to experience significant barriers to traditional care and may require an innovative approach to facilitate effective treatment.

Acknowledgments

The authors acknowledge the contributions made by the clinicians on the RESTORE team, including Brian Dezzutti, MD, and Derek Bacchus, PhD, for their dedication to providing innovative, patient-centered care to veterans.

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The authors report no actual or potential conflicts of interest with regard to this article.

drug combinations—including indications, contraindications, warnings, and adverse effects—before administering pharmacologic therapy to patients.

Ethics and consent

This study was approved by the Salem VA Health Care System Institutional Review Board Chair as nonresearch. Informed consent was not required.

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