A 24-year-old woman presented to a rural Federally Qualified Health Center (FQHC) with progressive and severe symmetric large joint arthralgias of several weeks’ duration. The patient’s existing medications included etonogestrel 68 mg subdermal implant, levetiracetam 1500 mg bid, insulin glargine 26 units subcutaneously nightly, and insulin lispro 20 units subcutaneously tid (before meals). An examination revealed symmetrically edematous elbows, wrists, and fingers. Subsequent serologic analyses and a telemedicine consultation with a rheumatologist confirmed a diagnosis of rheumatoid arthritis (RA). The patient’s lab work was positive for antinuclear antibody titers (1:40), rheumatoid factor (513 IU/mL), and anticyclic citrullinated peptide antibodies (248 units/mL). Treatment was started with prednisone 60 mg PO daily, methotrexate 20 mg PO weekly, and hydroxychloroquine 400 mg PO daily. (The benefits of prednisone in treating this patient’s severe arthralgias outweighed concerns over its use in a patient with diabetes.)

After 2 months of receiving RA therapy, the patient underwent further work-up to assess its effectiveness. Liver function testing was performed, and she tested positive for hepatitis C virus (HCV) antibodies. Viral polymerase chain reaction confirmed active HCV infection. Lab work revealed a viral load of 15,000,000 IU/mL; transaminase, 173 U/L (normal range, 4-36 U/L); and aspartate aminotransferase, 246 U/L (normal range, 8-33 U/L). A liver sonogram demonstrated no findings of cirrhosis or fibrosis.

Upon receiving a diagnosis of active hepatitis C, the patient acknowledged that she’d had unprotected heterosexual intercourse and shared used insulin syringes with friends.

Consideration was given to a diagnosis of HCV arthropathy, which can present as an RA-like arthritis in HCV-infected individuals, in the differential diagnosis. A cohort study found HCV-associated arthropathy occurred in 6.8% of those with chronic HCV infection. However, the symmetrical involvement of shoulders and knees as the patient’s primary arthralgias, and a rheumatologic work-up showing the presence of anticyclic citrullinated peptide antibody levels, confirmed the diagnosis of RA with coexisting HCV.

Delivering interdisciplinary care in a rural area
Although evidence-based guidelines and online HCV Treatment Path programs guided the initial evaluation of potential treatments for this patient, her multiple comorbidities prompted us to seek out additional, interdisciplinary advice through a resource for underserved communities called Project Extension for Community Healthcare Outcomes (ECHO; see “What is Project ECHO? [1,4]”). The patient’s case was presented virtually, without identi-
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This case shines a light on the multiple challenges that could have come between our patient and proper treatment—but ultimately, did not.
What is Project ECHO?

Project Extension for Community Healthcare Outcomes (ECHO) began as an avenue to connect hepatitis C virus (HCV) treatment experts to providers in underserved communities within New Mexico. Specialists can offer their clinical guidance to community clinicians without seeing the patient themselves. Project ECHO now has expanded to connect community clinicians across the United States and globally to specialists who treat other chronic conditions. More information about Project ECHO can be found at hsc.unm.edu/echo.

References