



The 65th ASH Annual Meeting Abstracts

POSTER ABSTRACTS

901.HEALTH SERVICES AND QUALITY IMPROVEMENT - NON-MALIGNANT CONDITIONS

Identifying and Managing Patients with Life-Threatening Hematology Disorders By Doing Telemedicine Inpatient Hematology Consults in Underserved Hospitals

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Background: Life-threatening hematology disorders require urgent intervention by expert hematologists. In many hospitals, there are no hematologists available to meet this need. This occurs in "underserved" hospitals, including many rural hospitals and many urban hospitals that do not have hospital-affiliated or hospital-employed hematologists on staff. Patients who present to these hospitals with life-threatening hematology conditions may have worse outcomes than those who present to hospitals that have hematologists on staff. The problem is created by the shortage of hematologists and the challenge of providing in-person consults in these hospitals. To address this problem, our telemedicine-based hematology practice joined the staffs of four underserved hospitals. We sought to identify and manage patients who require urgent hematology evaluation and intervention.

Methods: We created telemedicine-based heme/onc consult services in four underserved hospitals that had little or no access to hematology experts. These facilities included one rural hospital, one critical access hospital (CAH), and two urban hospitals. In one urban site, we provided "hybrid" telemedicine-based service, in which we evaluated patients in-person alternating with telemedicine. Inpatients were seen on A/V devices with the help of the patient's nurse or with a "telepresenter" who brought the devices to the patients. Hospital EMR's were accessed by our hematology provider team. To identify patients who needed our services, we educated hospitalists about the need for urgent telemedicine heme/onc consults for select patients with clotting, bleeding, abnormal blood counts and emergency heme/onc conditions.

Results: 3,202 patients were evaluated during a three-year period, including 180 patients in rural hospitals, 126 patients in a CAH, 349 patients in an urban hospital, and 2,547 patients in an urban "hybrid" hospital (mixed telemedicine and in-person consults). Consultations were mostly requested for non-malignant hematology patients, including those with bleeding, clotting, or abnormal blood count disorders. Heme malignancy and solid tumor patients were also referred. Several patients with life-threatening hematology or heme-malignancy conditions were identified, including 34 with acute life-threatening ITP, 23 with HIT, five with life-threatening high blood counts due to myeloproliferative disorder or newly diagnosed chronic myelogenous leukemia (CML), two with TTP, and two with atypical HUS. Two patients with acute promyelocytic leukemia (APL) were identified, stabilized, transferred to tertiary care hospitals, and ultimately cured of their conditions.

Telemedicine enabled our hematology practice to provide same-day consults and weekend coverage for hospitals located far apart and outside our home region. Some patients were transferred to tertiary care hospitals more promptly because of our service, while others were deemed safe to avoid a hospital transfer that would otherwise have been requested. In some cases, we provided stewardship for blood transfusions and guidance for blood transfusion refusal. Finally, in some cases we enabled safe discharge by planning prompt telemedicine follow-up.

Some of the challenges we faced included slow internet connections and less sophisticated EMR's in rural and CAH hospitals that required more time to complete a consult than would otherwise be needed. It was sometimes challenging to plan A/V televisits at convenient times. Sometimes we felt hindered by lack of in-person assessment. Some of the tests and interventions we would have requested in larger hospitals were not possible, resulting in delays of care or requiring transfers to tertiary care hospitals. Finally, some patients who may have otherwise received inpatient chemotherapy or radiation were discharged instead of being transferred.

Conclusions: Telemedicine inpatient hematology consults for underserved hospitals are feasible, though challenging. It is possible to identify and manage patients who have life-threatening hematology disorders via telemedicine.

Disclosures Fein: *Pharmacosmos*: Speakers Bureau.

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