



The 65th ASH Annual Meeting Abstracts

ORAL ABSTRACTS

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

Sickle Cell Disease Electronic Health Record Population Management Approach to Support Delivery of High-Quality Care: Leaving Paper Lists behindKim Smith-Whitley, MD¹, Elizabeth Brooks², Alicia Brandemarte², Cynthia Norris, MD³¹ Pfizer, Inc., New York, NY² Population Health Innovation Team, Children's Hospital of Philadelphia, Philadelphia, PA³ Division of Hematology, Children's Hospital of Philadelphia, Philadelphia, PA

Children and young adults with sickle cell disease (SCD) require complex health care services to screen for early signs of disease-related complications and to initiate and monitor disease-modifying therapies. Care coordination is challenging as it involves multiple team members across multiple subspecialties. Evidence-based clinical protocols and quality metrics are essential for SCD programs to deliver high-quality care. Systems to track this care delivery are crucial to ensure equitable, accessible care is consistently provided.

In 2016, the Comprehensive Sickle Cell Center (CSCC) and the Population Health Innovation Team at Children's Hospital of Philadelphia (CHOP) developed and implemented an electronic health record (EHR)-based system, the SCD patient registry and proactive care outreach tools, to facilitate processes needed to ensure patient service delivery in a timely fashion. We selected Transcranial Doppler (TCD) ultrasounds, hydroxyurea therapy initiation, and annual clinic visits to monitor stroke risk screening, disease-modification therapy, and general chronic illness care. Between January 2015 and June 2023, approximately 1400 patients with SCD were tracked across two CHOP outpatient clinics, the CHOP Philadelphia and CHOP Voorhees campuses. We tracked TCD completion, hydroxyurea prescriptions, and clinic visits per year for age-eligible patients with SS and SB0thal.

Prior to implementation of the EHR-based tools and new workflows in October 2016, for age-eligible patients, on average 75% of patients had received annual TCD screening, 55% of patients had received hydroxyurea prescriptions within the prior 6 months, and 85% had attended outpatient hematology clinic at least twice within the year. As of June 2023, on average, completed TCD visits had increased to 91%, patients prescribed hydroxyurea had increased to 78%, and patients attending 2 clinic visits within a year had increased to 89%. These metrics remained consistent and improvement was sustained despite the COVID-19 pandemic. Table 1 describes the drivers influencing these improvements, which included various interventions involving social work, nursing, community health workers, registrars, care coordinators, and physicians. Figure 1 illustrates the changes achieved over time in rates of TCD completion, hydroxyurea prescriptions, and clinic visit attendance.

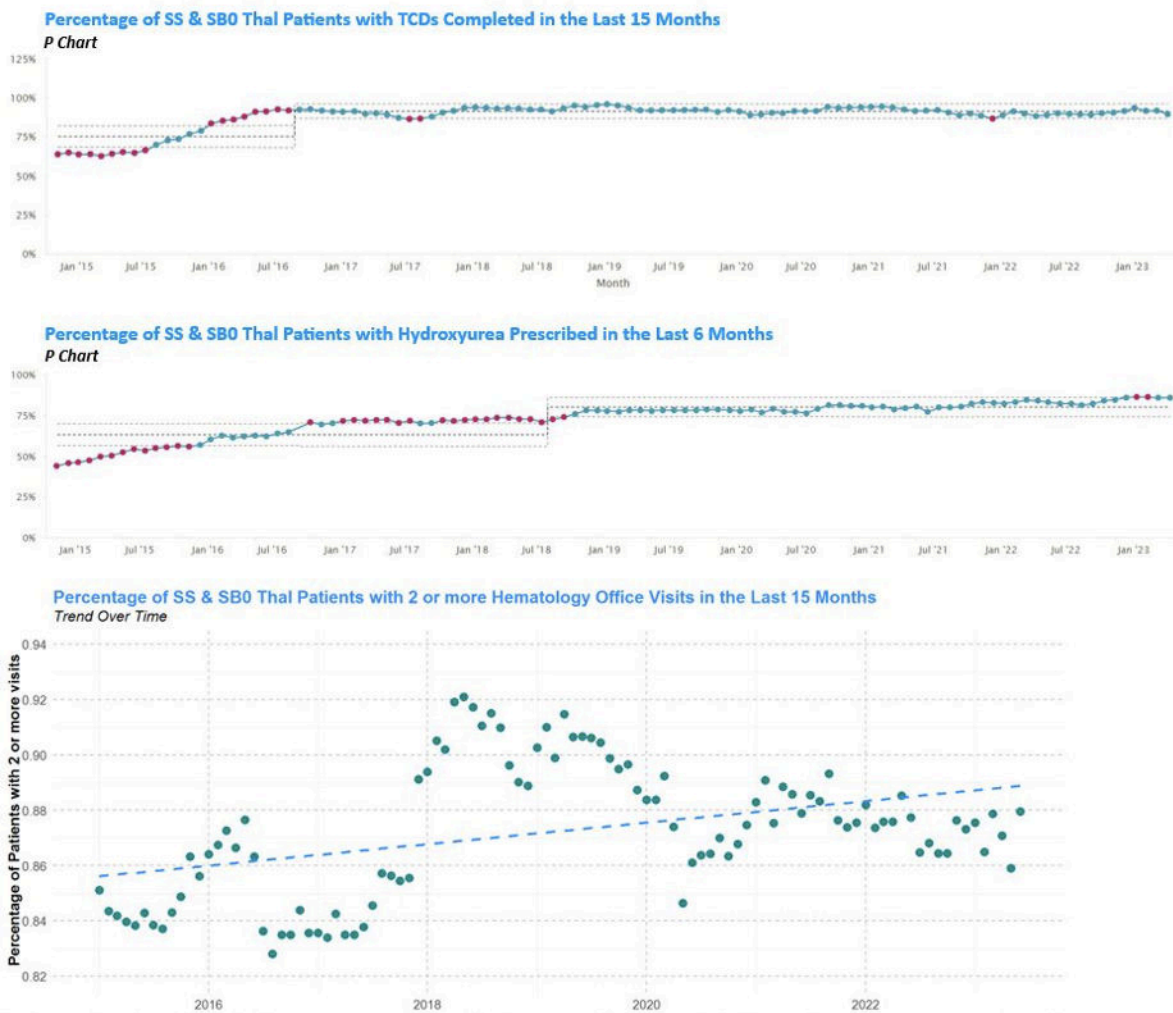
This implementation of an SCD EHR-based population health tool and new care team workflows facilitated more efficient processes for various care team members and improved our ability to consistently provide timely services to children and young adults with SCD. This resulted in sustained improvement in all metrics and high-quality care for our patients.

Disclosures Smith-Whitley: Pfizer, Inc.: Current Employment.

Table 1

Drivers of Change	TCD Stroke Screening	Hydroxyurea Prescriptions	Hematology Outpatient Visits
Care coordinators assisting patients with appointment scheduling	✓	✓	✓
Reminder phone calls and texts	✓	✓	✓
Transportation services	✓		✓
Child life services available	✓		
Offering telehealth appointments when appropriate			✓
Monitoring appointment "no-shows"	✓	✓	✓
Prompt rescheduling of missed appointments	✓	✓	✓
Scheduling next appointments at end of current clinic visit			✓
Provider education in pre-clinic conference	✓	✓	✓
Nursing team reminding providers of needed services	✓	✓	✓

Figure 1



*The graphs above include data on some patients who have transitioned to adult-focused care centers or transferred care away from CHOP. There is a current QI project underway to update the patient population, so numbers may change slightly.

Figure 1

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