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Improving the Discharge Process for Children with Single Ventricle Heart Disease

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Abstract

Problem Description: There remains a gap in discharge care for patients with SVHD.

Rationale: Patient care needs after discharge are complex and require supportive coordination.

Interventions: Parents participated in a revised discharge plan consisting of an outpatient nurse coordinator, revised discharge education, remote home monitoring, and a telemedicine encounter within 48 hours of discharge.

Results: A 31% decrease in hospital encounters and 50% decrease in average length of stay was experienced in the study group (n=5). Parent's perception of discharge readiness data was extremely positive.

Conclusion: The implementation of a focused discharge plan positively impacted patients with SVHD.

Keywords

complex chronic conditions, telemedicine, readmission rates, discharge bundle, hospital utilization, discharge, parental stress



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Rationale

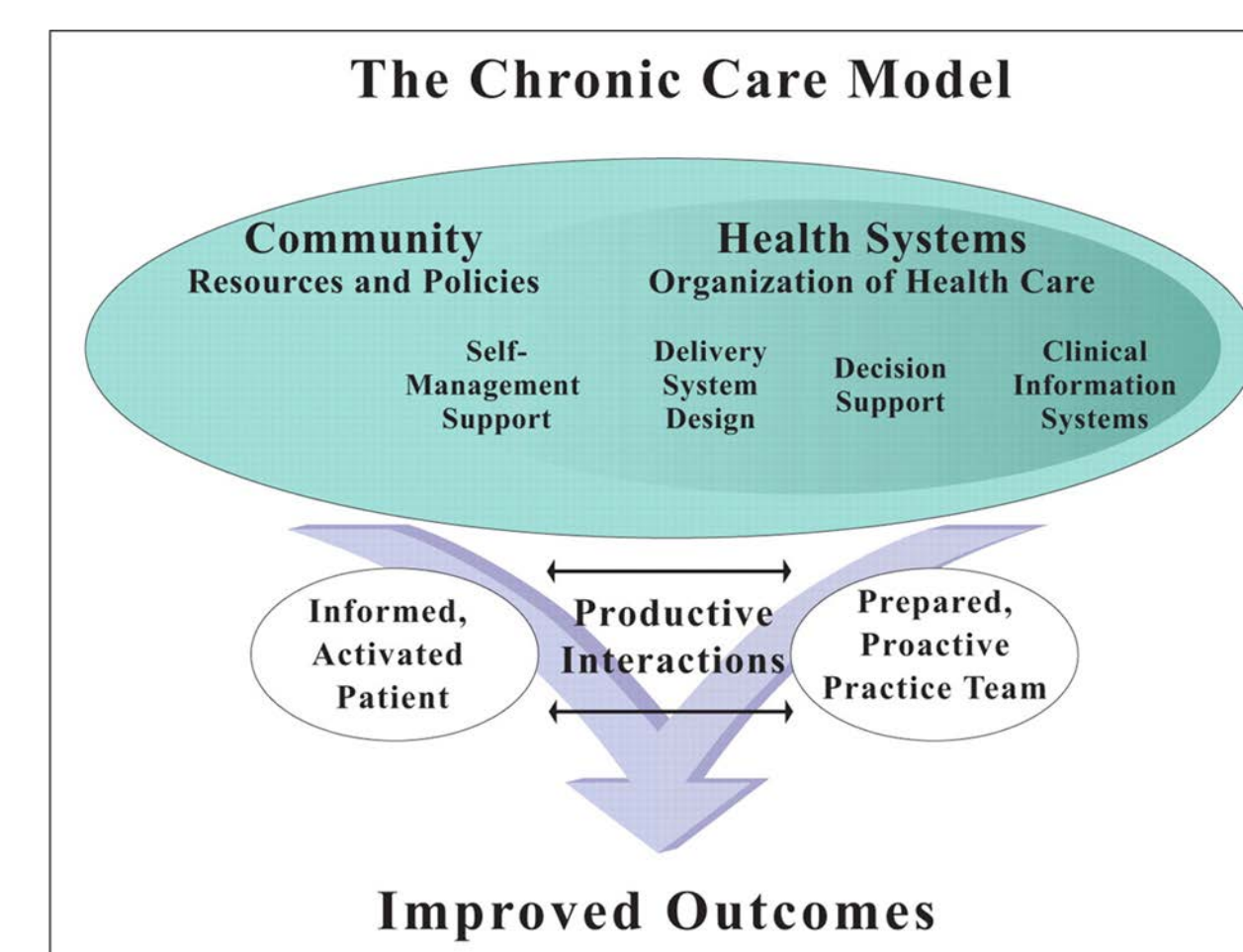
- Children with SVHD require multiple open heart surgeries in the first years of life
- Patient care needs after discharge are complex and require supportive coordination
- Management between surgeries provides better outcomes
- Gaps in care place families at risk for poor outcomes

Purpose/Aims

- Identify the impact of a revised discharge bundle on hospital utilization rates and parental perceptions of readiness for discharge in SVHD patients during the interstage period.

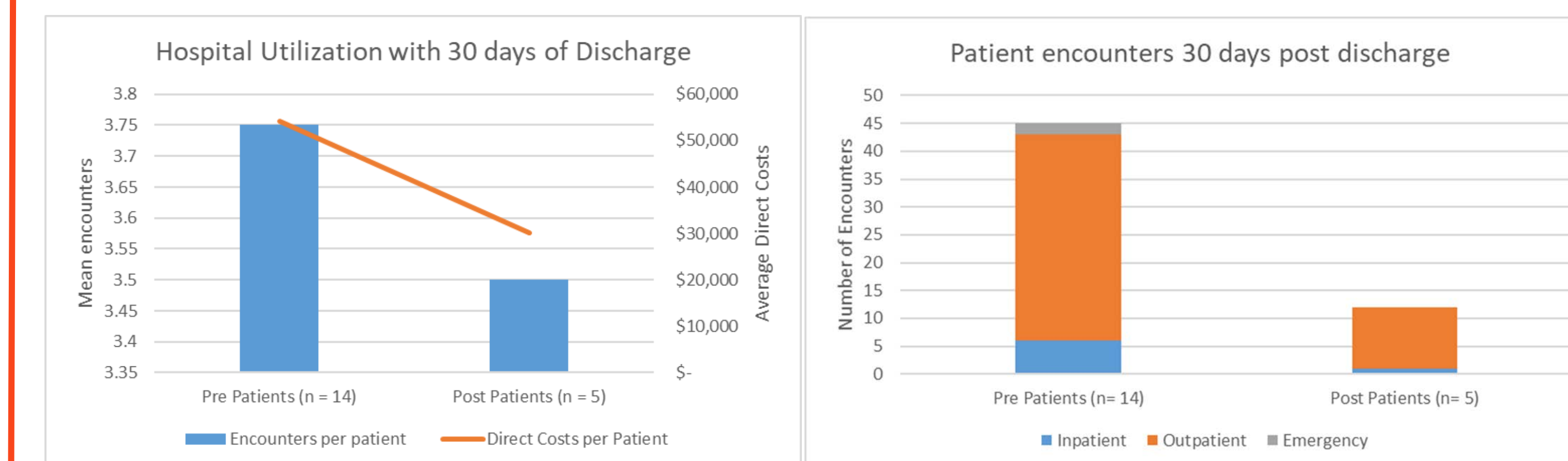
Methods

- Quality improvement project
- Participants included parents of children with SVHD
- Theoretical model



- Revised discharge bundle included:
 - Assignment of an outpatient RN coordinator
 - Revised discharge education
 - Remote home monitoring app (iPad)
 - Telemedicine encounter within 48 hours of discharge
- A survey was completed by the families at time of discharge and again at 30 days post discharge
- Hospital utilization was measured using patient encounters, length of stay, and hospital charge data.

Results



Quality of Discharge Teaching Survey	Discharge Survey	30-Day Survey	Statistical Significance
Was information provided in a way you could understand	9.6	10	p = 0.3739*
Did the information provided decrease your anxiety	9.0	9.2	p = 0.7780*
Did you receive consistent information from your health care team	8.2	7.2	p = 0.3943*

Readiness for Hospital Discharge Survey Registered Nurse	RHDS RN (mean)	QDTS Parent (mean)	R-value**	Statistical Significance
How much does the parent know about caring for the child after they go home	8	9.4	-0.539	p = 0.348
How much stress does the parent feel today	8.6	9	0.612	p = 0.272

Clinical Relevance

- Supporting families as they transitioned from hospital to home is essential
- Real-time data sharing improved the knowledge of the families and the clinical team
- Solutions should be multimodal to meet the diverse needs of patients
- Improving parental perceptions of discharge readiness can be achieved