

Use of a Remote Patient Monitoring Program for Hypertensive Disorders in Pregnancy

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BACKGROUND

- Maternal mortality is an evolving health concern across the United States. The most recent data reported by the CDC (2017-19) shows >80% of deaths are preventable.
- Louisiana Pregnancy-Associated Mortality Review (LA-PAMR, 2022) further indicated that the top causes of maternal death in our state are cardiovascular disease and hypertensive disorders of pregnancy. Of those, 61% occurred within the 42 days following delivery.

Our project focused on a pathway to increase patient blood pressure monitoring following hospital discharge, using Babyscripts, a Remote Patient Monitoring (RPM) system made available to LCMC hospital system in 2022. Patients are enrolled through EPIC and patient vitals are automatically uploaded to the patient chart.

- In August 2022, the program was implemented in the Touro Birthing Center, allowing high-risk mothers to be enrolled in a postpartum monitoring program at discharge.
- Patient alerts route to the physician/office via phone or EPIC message.

To optimize physician communication through the RPM system by developing efficient pathways for alerts, resulting in a decrease in call volume by end of 2023.



An initial PDSA to roll out the RPM was studied over several months. It was determined that the trigger blood pressure protocol needed to be optimized for physician notification of urgent blood pressures.

AIM



SUBSEQUENT PDSA's

NOTIFICATIONS

Urgent notifications were called into the physician call system to provide direct communication between patient/physician.

Low acuity readings were held until the next business day (1071 calls in the 7-months).

This created an increase in call volume in physician offices during peak busy time. To counter this problem, an EPIC Inbasket messaging algorithm was created.

EARLY RESULTS

By converting to InBasket messages, we anticipated reducing call volume by 87%. Results at 3 months show an 85% reduction.



CONCLUSIONS

1. Hypertensive disorders are a major contributor to maternal morbidity and mortality, particularly in the postpartum phase of care.

2. Optimizing communication pathways using RPM is necessary to ensure timely patient care for urgent events. It is critical to also minimize disruptions to daily physician and staff workflow.

3. The integration of the Babyscripts system with the EPIC medical record enables physician notification of remote blood pressures, creating a safety net for patients during the critical postpartum phase of care.



References:

1. CDC, Maternal Mortality data 2017-2019. https://www.cdc.gov/reproductivehealth/maternalmortality/erase-mm/data-mmrc.html 2. LA PAMR Report, 2017-2019..



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