Frailty-adjusted Inpatient Glycaemic Targets for Preventing Hypoglycaemia: Quality Improvement Project

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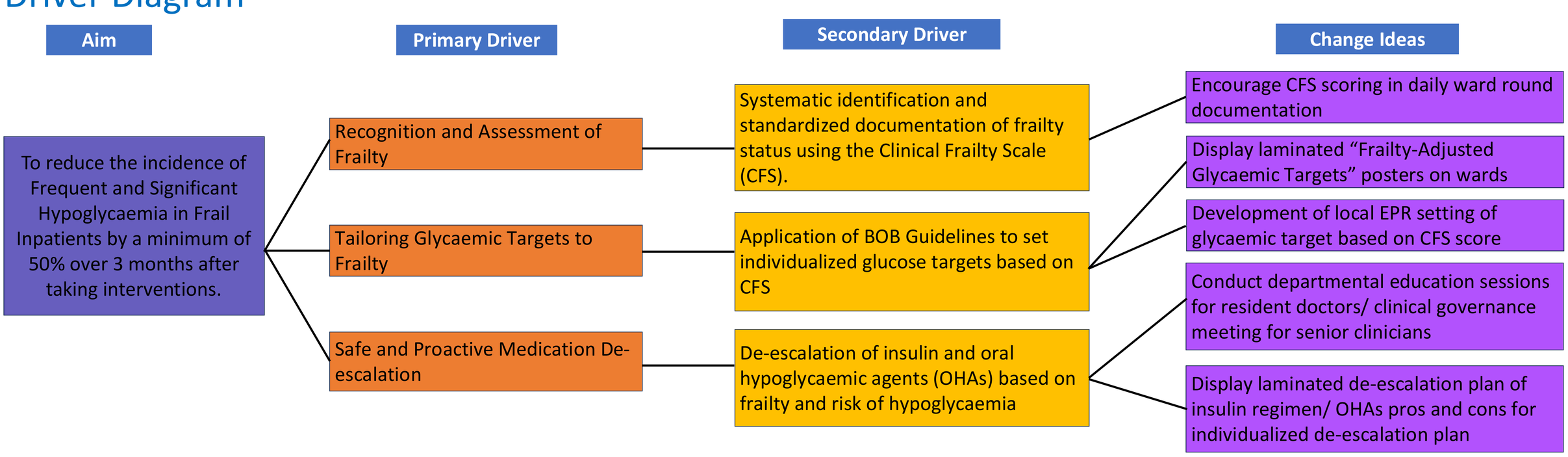
Background

Older adults with frailty are particularly vulnerable to harm from tight glycaemic control, with hypoglycaemia contributing to falls, cognitive decline, and increased mortality[1]. National (JBDS: Inpatient Care of the Frail Older Adult with Diabetes[2]) and local (Buckinghamshire, Oxfordshire & Berkshire–BOB[3]) guidelines recommend individualising glucose targets according to frailty level, but adherence is inconsistent.

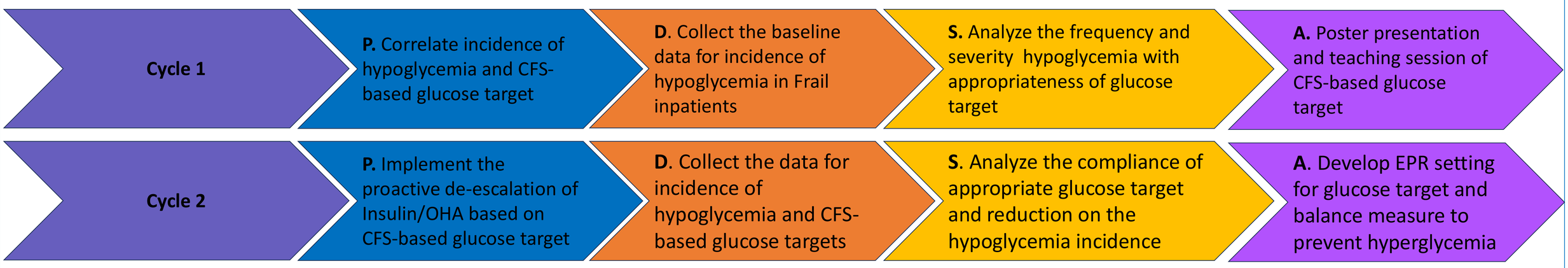
Aim

To reduce the incidence of Frequent and Significant Hypoglycaemia in Frail Inpatients by a minimum of 50% over 3 months after taking interventions.

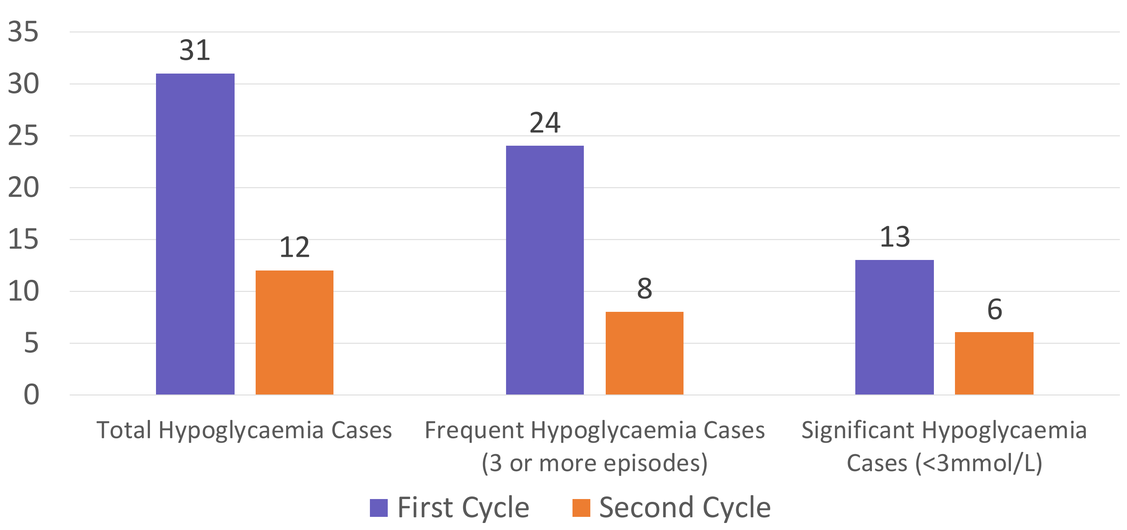
Driver Diagram



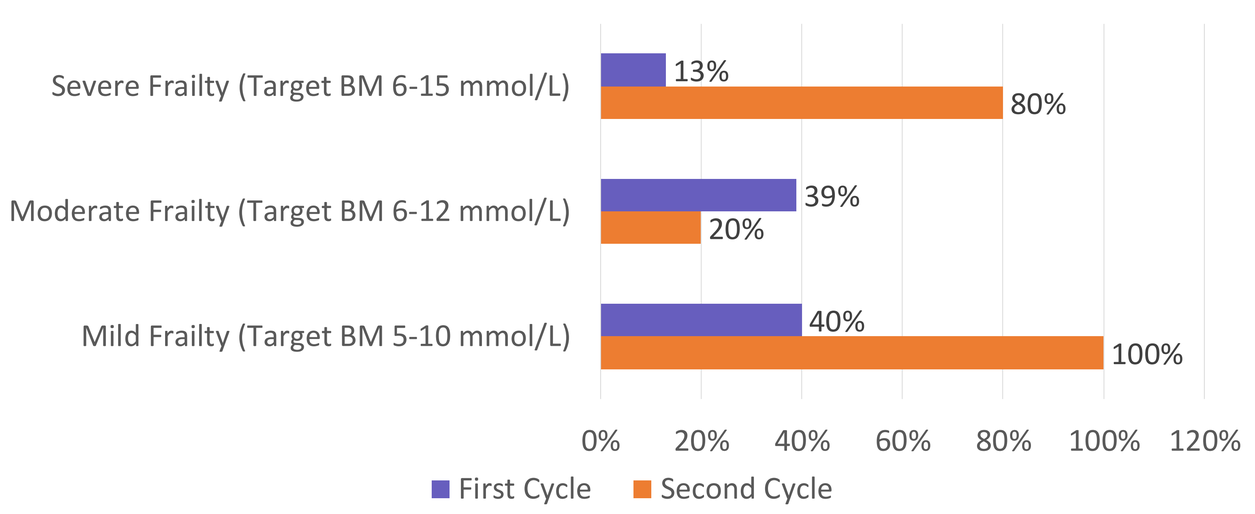
Plan, Do, Study, Act (PDSA Cycles)



Incidence of Hypoglycemia in Frail Inpatients



Appropriate Inpatient Glucose Target based on Frailty



Discussions & Conclusion

- Adopting frailty-adjusted glycaemic management, including proactive medication de-escalation, substantially lowered both frequency and severity of hypoglycaemia in frail inpatients.
- Variability among moderately frail patients (CFS 4–6) underscored the need for clearer guidance and continued staff education.
- Although limited by small sample size and short follow-up, tailoring glycaemic targets with CFS achieved over a 60% reduction in hypoglycaemia, emphasizing the value of integrating frailty assessment into routine diabetes care.

Next Steps:

- Incorporate the Clinical Frailty Scale (CFS) and individualized glycaemic targets into electronic health records to enable automatic prompts and standardized documentation.
- Establish a trust-wide guideline for frailty-adjusted diabetes care, aligned with JBDS and BOB recommendations.
- Monitor recent HbA1c levels before medication de-escalation to maintain glycaemic safety.
- Expand the intervention across all wards with ongoing education and audit cycles
- Assess both patient outcomes and staff confidence to refine protocols and optimise impact.

Ref: 1. Munshi, M.N., 2020. *Challenges and Strategies for Inpatient Diabetes Management in Older Adults*. *Journal of Diabetes Science and Technology* , *2.* Joint British Diabetes Societies (JBDS), 2023. *Inpatient Care of the Frail Older Adult with Diabetes (JBDS 15)* , *3.* Buckinghamshire, Oxfordshire & Berkshire (BOB) Integrated Care Board, 2023. *Diabetes and Frailty: Guidance on the Management of Older Adults with Type 2 Diabetes*