Mind the Gap

Standardising Salbutamol Weaning Plan on Discharge in A&E

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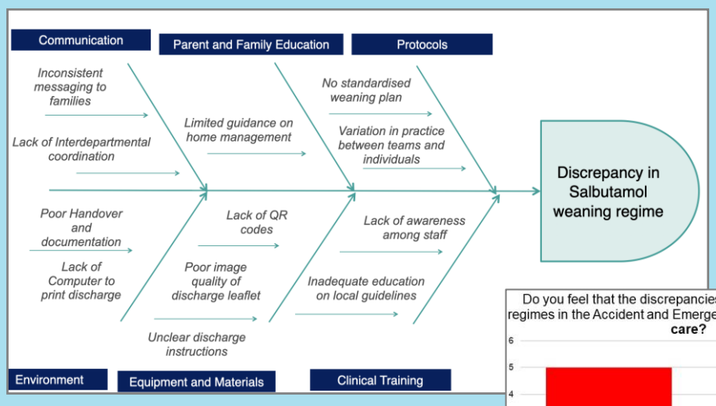
PROBLEM
Discrepancy in Salbutamol weaning advice in Accident & Emergency department, creates **confusion for families.** It **compromises care**, increases risk of **deterioration** and **re attendance** leading to **lack of confidence** in staff.

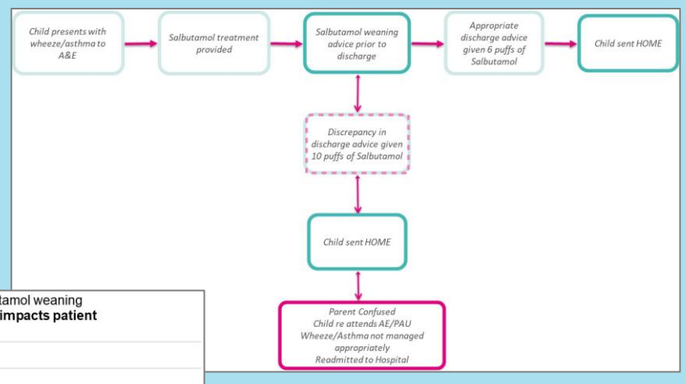
BACKGROUND

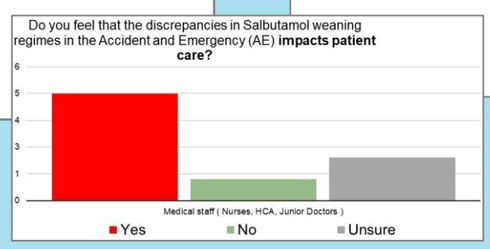
Children presenting with wheeze in our AE department are given different Salbutamol weaning plan on discharge leading to parental anxiety, inconsistencies in patient care which is a significant patient safety issue.

It's a national problem with variation in the guidance available. Addressing these inconsistencies through a quality improvement project can enhance patient outcomes and streamline care processes to ensure safe, consistent, and high-quality care for paediatric patients.

DIAGNOSTICS







AIM

By August 2025, reduce discrepancies in Salbutamol weaning regime for children attending our Accident and Emergency department from 5/10 to 2/10 per week.

MEASUREMENT

Number of children presenting to AE discharged with a Salbutamol weaning plan recorded in their notes

1 - Yes, correct Salbutamol weaning plan on discharge
0 - No, the Salbutamol weaning plan on discharge is incorrect

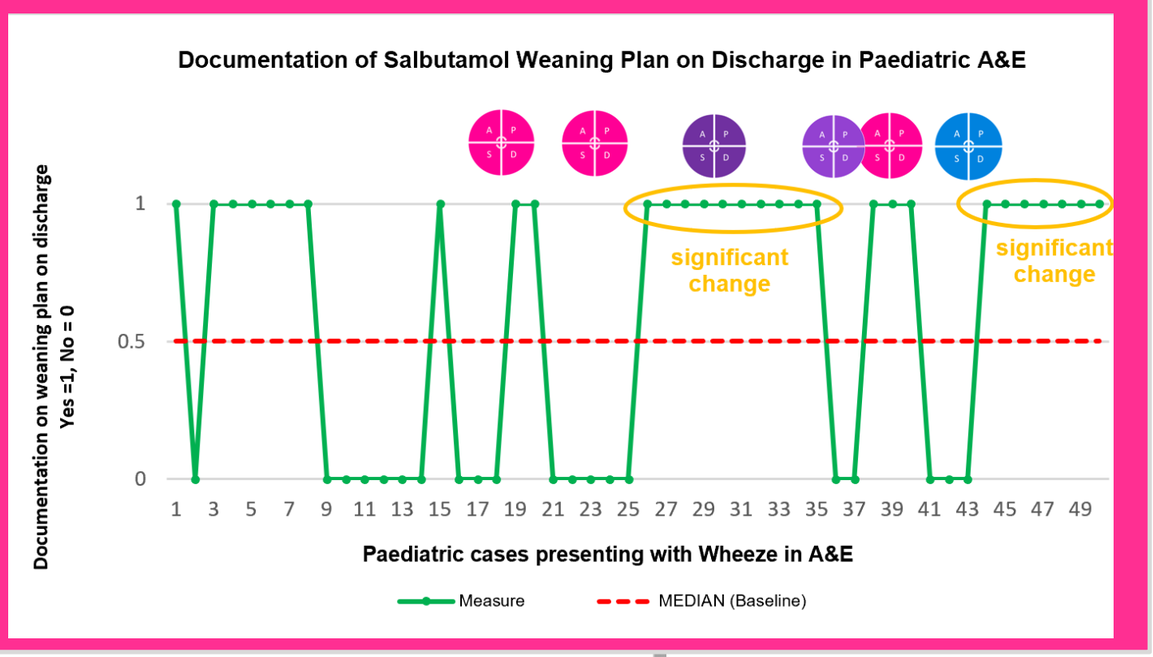
CHANGE IDEAS

- Develop and agree on a shared protocol (within Paediatric AE)
- Display it clearly in clinical areas (posters, staff room, desktop wallpaper)
- **Weaning Regime**
  Add the Weaning Regime to the Discharge Template or EPR (Current Trust moving to Electronic Health record EPIC)
- **Standard wording in discharge summaries or prescriptions**
  Ensure standard wording is included in discharge summaries or prescriptions, can make a template
- Pre-set options can help reduce variability in prescribing
- Brief Teaching Session / Induction Update
  Run short, 10-minute teaching for junior doctors and nurses in the AE departments
- Include in induction packs or handover folders (important during change overs)
- Visual Reminders
- Create a WhatsApp group or Teams channel between ED and PAU leads to quickly share and resolve issues
- **CONDUCT A WEEKLY MICRO-AUDIT**
  Review 5-10 cases per week to track discrepancies and share feedback in team huddles
- **NOMINATE A "SALBUTAMOL CHAMPION"**
  Assign a doctor or nurse in the department to lead and reinforce consistent practice
- **FEEDBACK WALL OR DASHBOARD**
  Share real-time audit data on a poster in the staff area to show progress and keep momentum

PDSA CYCLES

PDSA Test #	PLAN	Do	STUDY	ACT
1.1	Lead the 1st teaching sessions about Salbutamol weaning plan at discharge for junior doctors and nurses in the A&E department	Gave brief but high yield teaching on Salbutamol weaning plan on discharge. To AE doctors, nurses, Cons, ANP during Morning Handover in the AE staff room	Feedback was received: Comments included: Confidence in weaning related topics. ID a Salbutamol Champion among A&E staff. Create a WhatsApp group for queries about the project.	**Extend**, to cover more AE staff and spread awareness
1.2	Nominate a Salbutamol Champion within the AE department (AE registrar) to help with the Salbutamol weaning plan	After the 1st teaching session, presented my 3 min QI pitch and shared my QI idea	Gained feedback for improvements and increased awareness amongst AE colleagues with regards to the QI project. Increase eagerness to help and confidence amongst the Salbutamol champion	**Adopt**, To ensure role structure of Salbutamol champion and to engage AE consultants with a formulation of a new guideline
1.3	Engage AE Consultants to help with QI project and make a new Salbutamol weaning guideline in line with the QI project	Approached AE Cons and set up a meeting with my QI and presented my QI pitch	Idea well received, AE consultants feel it's important to get a new guideline to help junior doctors especially during induction and changeovers. But will need management and local QI team to involve might take weeks/months.	**Adopt**, to engage clinical team, service managers and QI team locally to design new guideline
2.1	Create a WhatsApp group to improve communication, consistency, and timely resolution of clinical and operational issues for nurses and clinical fellows in the paediatric AE department.	Launch the WhatsApp's group - created after the first teaching session with good response. Sharing message of the day/week about Salbutamol weaning regime during discharge. Use platform for clarifications especially for new nurses and junior doctors rotating in the AE department.	Review the activity in the group in view of number of post, types of discussions and engagement, weekly reminders about the Salbutamol weaning plan. Put the Salbutamol Champion as Admin to help with the queries when I am not around.	**Extend and Adapt**, Extend it to junior doctors rotating, as for now only to AE nurses and Clinical fellow as they have permanent posting. Forward planning for moderators as admins I will be rotating to another hospital to keep in going.
2.2	Continue Teaching during Induction and change over week	Enlisted Salbutamol champion colleague who was giving induction talk to new doctors to give information about the Salbutamol weaning plan on discharge	Positive impact on the AE staff, well received by the nurses and new doctors joining. Feel confident during the start of their post, However there was a dip in the documentation during the first week of induction as expected	**Extend and Adapt**, suggestion of creating a short video presentation to be used during induction and changeovers, so the Information can still be pass over when I am not around
3.1	Engage with Service manager and local QI team to plan for formulation of new guidelines about Salbutamol weaning plan on discharge in the AE department	Discussed with team involved in service provision and presented my 3 min QI pitch via MS teams	Acknowledge that this a great idea to improve patient care however may take months to approved and design a guideline to be placed over the intranet as requiring approval from management and change in system software to EPIC	**Abandon**, This would be challenging for the purpose of this QI project and time constraints

RUN CHART



REFLECTIONS & LEARNING

What worked best were the small, practical interventions that fitted easily into existing workflows. These improved staff confidence quickly, demonstrating the value of incremental tests of change. What was less successful was the attempt to implement a unified guideline. Although evidence-based, this required wider service management and IT system change, which proved to be a significant barrier and outside the scope of what a frontline team could achieve quickly. A key learning point I have identified is the challenge of creating and sustaining change that does not depend on my continued presence. While the project delivered improvements, initiatives such as teaching and informal reminders risk fading once the driver of change moves on. For true sustainability, ownership must be transferred to the wider team and embedded into systems — for example, creating a video presentation about the salbutamol weaning plan on discharge as part of induction packs, and nominating ongoing champions.
This project highlighted in me that lasting change comes from building structures, habits, and shared ownership rather than relying on individual enthusiasm. The Model for Improvement encouraged testing and learning, but sustaining gains required attention to leadership engagement, system integration, and ongoing accountability beyond the project lead.

CONCLUSION

This Quality Improvement project aimed to reduce discrepancies in salbutamol weaning plans on discharge from 5/10 to 2/10 per week in paediatric A&E, while improving staff awareness and junior doctor confidence. The run chart demonstrates a sequence of seven consecutive points on the same side of the median, highlighted to show evidence of non-random variation. This run meets the statistical rule for detecting a significant shift, indicating that the change observed is unlikely to be due to chance alone. The inference suggests a true improvement in the process, supporting the effectiveness of the interventions introduced during the project. The Practical interventions such as short teaching sessions, having a Salbutamol champion, frequent reminders on the what's app group with improved communication within the AE staff successfully reduced errors and increased confidence among the team. Attempts to implement a unified guideline were ultimately abandoned due to service management and electronic system barriers, but the project demonstrated that small, pragmatic changes can have a significant impact on patient safety and consistency in practice.

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