# Going for Gold!

An opportunity to improve within-the-hour administration of antibiotics in critically unwell neonates.

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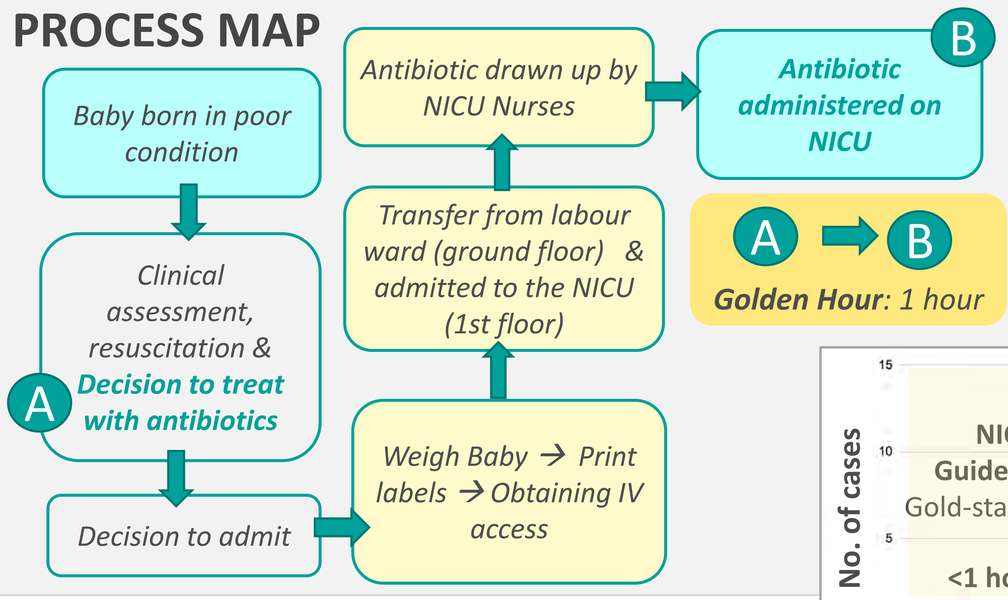
## 1. THE PROBLEM

**Critically-ill newborns** at high-risk of sepsis are **not receiving** IV antibiotics within the golden hour.

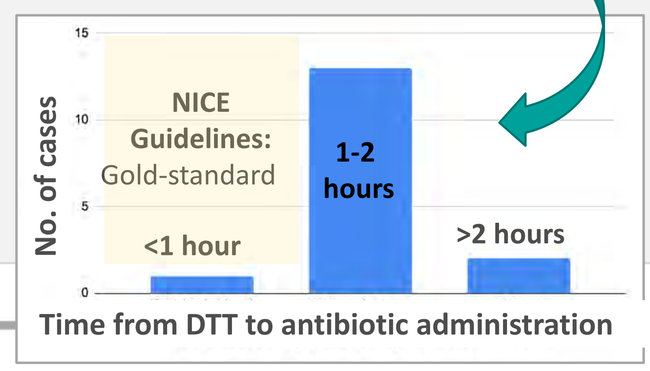
These **delays are life-threatening** for patients, and could result in preventable neonatal deaths.

## 2. PROCESS MAP




## 3. BASELINE DATA

Time taken from decision to treat (DTT) to antibiotic administration




## 4. AIM

By **March 2024**, the percentage of critically-ill newborns receiving antibiotics within the golden hour will **increase from zero to 50%.**

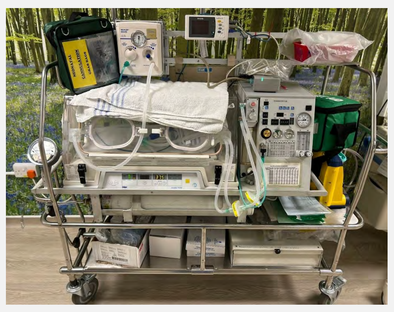
## 5. MEASURE

Time taken from decision to treat (DTT) to antibiotic administration

## 6. CHANGE IDEAS


Neonatal IV Cannula Grab Bags

MDT awareness about Golden hour



Changing Incubator location to labour ward

Changing portering priorities

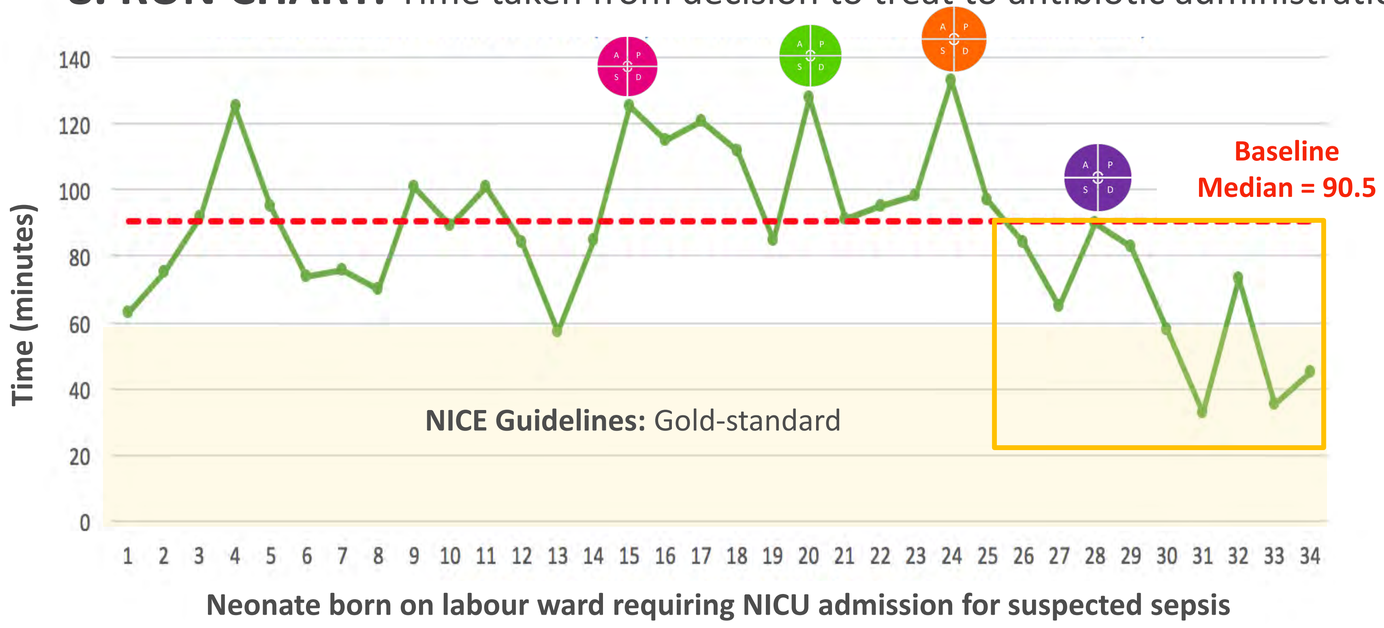
Administer IV Benpen on labour ward


## 7. PDSA cycles

| | PLAN | Do | STUDY | ACT |
|---|---|---|---|---|
| 1a | **MDT awareness - Forming a QI team** | Pitched QI aims and baseline data to **1a.** senior NICU team members: QI consultant lead, NICU Matron & NICU PDN & **1b.** neonatal doctor team. Followed this with an email/WhatsApp message highlighting the importance of the golden hour sepsis standard. | 0% (0/5) *<br>**Average time** ⬆ by 120% | **Adapt**: present at wider maternity meetings, to involve other MDT members (NICU nurses, midwives)<br>**Extend**: Continue to update the team with progress of the QI performance. |
| 1b | **MDT awareness about the Golden Hour standard** | | | |
| 2 | **Cannulation grab bags to facilitate speedy IV access.** | Created bags, discussed with neonatal PDN regarding where to keep them & who's responsibility it is to make them. Spread word about use. | 0% (0/4)*<br>Average time**<br>**⬇ by 2%** | **Adapt**: Incorrect bag contents needed troubleshooting. Nurses not consistently bringing them down to resuscitations.<br>**Extend**: Continue to raise awareness & encourage use. |
| 3 | **Changing portering priority of NICU transfers** | Email portering head to highlight delay in incubator arrival/departure as a rate limiting step in transfer to NICU | 0% (0/4)*<br>Average time**<br>**⬇by 24%** | **Adapt**: Request IT to flag incubator transport option as urgent.<br>**Extend**: Continue to feedback to portering team. |
| 4 | **IV Benpen administration on labour ward** | Change SOP to facilitate antibiotic delivery on labour ward. Doctors to be drug second checkers & team to retrospectively prescribe antibiotic once admitted to NICU. | **80% (4/5)***<br>Average time**<br>**⬇ by 40%** | **Extend**: Continue to remind nursing and doctoring staff to administer antibiotics on LW if there are transfer delays to NICU. |

* % cases meeting golden hour
** Average time taken to deliver antibiotics from DTT

## 8. RUN CHART: Time taken from decision to treat to antibiotic administration




## 9. REFLECTIONS & LEARNING

- By the final PDSA cycle, **the golden hour was met in 80% of cases** (albeit the small sample size).
- A statistically significant run of 8 points was demonstrated following PDSA cycles 3 and 4.
- The **cumulative effect** of the preceding PDSAs**,** rather than a single intervention, facilitated a successful final outcome.
- **Stakeholder buy-in & a shared goal** across all MDT members (nursing, midwifery, portering and doctors) continues to play a crucial role in achieving and sustaining the golden hour standard.

| qiclearn.com | londonpaediatrics.co.uk

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*NICU: Neonatal intensive care*
*LW: Labour ward*
*PDN: Practice development nurse*
*SOP: Standard Operating Protocol*

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Change CHAMPION