CAP it all!

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Lewisham and Greenwich NHS Trust

My improvement problem & evidence base

1 in 5 children we see in A&E are struggling to breathe with wheeze and pneumonia. All of them are harmed by over-investigation and wrong treatment. This steals resources from other sick families.

Thorax

Understanding the problem (the diagnostics)

Equipment / Process / People / Materials / Management / Environment → Inappropriate Management of CAP/Wheeze

My improvement aim

What are we trying to accomplish?

SPECIFIC, MEASURABLE, ACHIEVABLE, RESULTS FOCUSSED, TIME-BOUND

An iterative process

Choose & define your baseline measures

My change ideas

Your change Ideas

Review all CXRs with CAP/Wheeze in Radiology meeting to clarify which actually have Cap and should be prescribed abx , and each time state the abx length and dose. --> emphasise CXR not that helpful, help people distinguish between wheeze and CAP changes, Junior Dr and Cons buy-in.
Ask pharmacist checking TTOs to challenge all prescribing doctors who have not prescribed first line recommended abx for CAP → Prompt them to reconsider their choice in accordance with guidelines
Ask Nurse dispensing from ward stock to do above (ditto)
Only stock first line abx on ward for quick TTOS. → incentive to prescribe that abx.
Implement an electronic prescribing template that automatically prescribed the correct abx for CAP --> removes human error/choice
Update the local micro guidelines for CAP so they reflect the BTS ones → makes guidance consistent so choice easier.
Encourage Junior Drs to download the micro app and childrens bnf to their phone → makes accessing info easier so more correct Rx.
Introduce teaching in various formats (formal shechuled teaching, micro teach in handover, video/bullet points in whats app group on CAP abx →increases awareness of guidelines
Extend the CAP trial from Lewisham to Greenwich (same trust) --> research nurses present to prompt correct management.
Create a patient video of impact of CAP and abx choice → explain importance (if any!) of intervention to drs.
Get Drs to audit team's prescribing → engagement
Cost benefit analysis of first line abx prescribing, present at Consultant meeting with senior management reps present --> engages senior WR decision makers in reasons to prescribe recccomended abx.

My PDSA cycles

PDSA Test Cycle

ACT — PLAN — DO — STUDY

PDSA: Plan

Change idea / ONE thing to test / What to do / When to do it / Where to do it / Who to do it / Predict outcome / Data to collect

My PDSA cycles

PDSA Test #	PLAN	DO	STUDY	ACT
1. Don't Reinvent the wheel	Discover if other trusts have a CAP proforma	Looked on Guideline Exchange and downloaded ECH one	Reflected on how it would apply to QEH	Asked students to modify it to fit our PED set-up
2. What you measure matters	Optimise drafted proforma	Condensed to one page. Added balancing measures.	Create questionnaire to measure baseline knowledge and get feedback on proforma	Asked students to create questionnaire
3. Use it or lose it	Educate doctors in proforma and guideline use.	Showed PED Drs proforma and completed questionnaire	Poor baseline knowledge in PED	Add CAP severity criteria and which antibiotic to prescribe on proforma
4. Wearing our caps backwards	Repeat cycle 3 with modified proforma	Showed PED Drs proforma and completed questionnaire	Diagnostic uncertainty means unsure if right proforma to use	Add alternative diagnoses + guidelines at decision points.

Baseline data and Proforma

Reasons for deviation from BTS CAP guidelines:
Figure 2: Illustrating reasons why clinicians deviate from BTS CAP guidelines

Unaware; Clinical Judgement; Exclude Differential Diagnosis; Contradicts Local Guidance; Other; Investigate to assess severity

37%, 21%, 16%, 16%, 5%

Febrile respiratory distress in children

My reflections and learning

AIM — **What do I want to achieve?** Increased clinician awareness of BTS Paediatric CAP guidelines

MEASURES — **How will I know that I've achieved it?** % of PED Drs correctly answering question on management of Pediatric CAP increases from 0%

CHANGE IDEAS — **What ideas have I got to help me achieve it?** Engage Junior Doctors in formal questionnaire feedback on a CAP proforma, educating them whilst improving the proforma.

How do I test my idea? Iterative cycles of formal proforma feedback using questionnaire with review of results via PDSA cycles.

QI Change Champion — LSP — Supported by QIC learn

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