



## **Scottish Patient Safety Paediatric Programme Paediatric Ward Workstream Driver Diagram and Change Package**



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A driver diagram is used to conceptualise an issue and to determine its system components which will then create a pathway to achieve the goal.

Outcome	Primary Drivers (Primary Drivers are system components which will contribute to moving the primary outcome)	Secondary Drivers (Secondary drivers are elements of the associated primary driver. They contain change concepts that can be used to create projects that will affect the primary driver)
<p><b>Improve paediatric ward outcomes</b></p> <p><b>(reduce mortality, infections, pressure ulcers and adverse events; improve recognition of deteriorating children and young people)</b></p>	<p>Appropriate, timely and reliable evidence-based therapies.</p>	<p>Paediatric early warning systems to identify deterioration.</p> <p>Prompt referral to higher level of care.</p> <p>Prevent healthcare associated infections and cross contamination.</p> <p>Prevent pressure ulcers.</p>
	<p>Child and family centered care.</p>	<p>Open communication between team, child and family.</p> <p>Child/family involvement in daily goal setting.</p> <p>Joint end of life care planning.</p> <p>Child/young person’s physical and environmental comfort.</p>
	<p>Effective and collaborative multidisciplinary teams.</p>	<p>Reliable care planning, communication and collaboration of a multidisciplinary team.</p>
	<p>Infrastructure and culture that promotes safety and quality.</p>	<p>Optimal flow of children and young people through paediatric wards</p> <p>Infrastructure and leadership to deliver consistent and reliable, evidence based care.</p> <p>Timely, regular feedback to clinicians of quality and safety performance measures.</p> <p>Staff with improvement skills.</p>



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Secondary Drivers	<p>Change concepts and ideas for PDSA testing</p> <p><b>‘Bolded’</b> items are required elements of SPSP</p>
Paediatric early warning system (PEWS) to identify deterioration.	<p><b>Assess child / young person’s risk using a paediatric early warning scoring system.</b></p> <p>Educate staff in use of PEWS.</p>
Early response system	<p><b>Create reliable process to respond to deteriorating child/young person.</b></p> <p>Develop decision-making package.</p> <p>Introduce team-based scenario training.</p>
Prompt referral to higher level of care.	<p>Structured communication techniques, i.e. SBAR for referrals.</p> <p>Institute PEWS score as part of referral.</p>
Prevent healthcare associated infections and cross contamination	<p><b>Peripheral vascular catheter (PVC) maintenance bundle:</b></p> <ul style="list-style-type: none"> <li>• perform hand hygiene before and after all PVC procedures.</li> <li>• review in-situ PVCs - are they still required?</li> <li>• remove PVCs where there is extravasation or inflammation;</li> <li>• check PVC dressings are intact; change dressing every 7 days or if dirty or loose;</li> <li>• consider removal of PVCs in situ longer than 72 hours.</li> </ul> <p><b>Establish reliable hand hygiene practices:</b></p> <ul style="list-style-type: none"> <li>• ensure staff knowledge about infection, transmission principles, hand hygiene, and hand washing technique;</li> <li>• make hand washing facilities, soap, alcohol and gloves available at the point of care;</li> <li>• monitor and provide feedback of infection data and hand hygiene compliance to clinicians;</li> <li>• create a culture that supports reliable hand hygiene.</li> </ul> <p>Identify patients with antibiotic resistant organisms (AROs) through active surveillance cultures (ASC):</p> <ul style="list-style-type: none"> <li>• identify patients at risk of having AROs and to be screened.</li> <li>• Create reliable process to obtain and process cultures;</li> <li>• Create reliable and timely processes for notification of culture results;</li> <li>• Create management protocol for colonised patients.</li> <li>• Monitor and provide feedback on ASC testing and patient management procedures.</li> <li>• Flag colonised patients.</li> </ul> <p>Use contact/isolation precautions and dedicated equipment for patients with known or suspected infection/colonisation spread via direct or indirect contact (note: HPS Transmission Based Precautions)</p>



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	<p>Policy was issued in 2008 and contact precautions is the term for organisms spread by direct and indirect contact)</p> <ul style="list-style-type: none"><li>• Ensure staff knowledge re contact precautions (current staff, new employees and rotating staff)</li><li>• Place patients with known or suspected infection/colonization on contact precautions, as per HPS Transmission Based Precautions Policy 2008/ CDC/ HICPAC 2007, or local policy</li><li>• Place patients in single rooms if possible</li><li>• If necessary, cohort patients on the advice of ICTs</li><li>• If single rooms or cohorting is not possible, create a “security zone” around the bedspace (e.g., red tape on the floor)</li><li>• If patient must be transported, alert receiving area/ward/service</li><li>• Monitor and provide feedback on ward’s isolation compliance</li></ul> <p>Use appropriate room cleaning and disinfection of general ward</p> <ul style="list-style-type: none"><li>• Educate staff on cleaning and disinfection procedures and assess competence</li><li>• Wear appropriate attire (aprons/gowns, gloves) when cleaning</li><li>• Make it easy to distinguish decontaminated equipment from non decontaminated equipment</li><li>• Decontaminate reusable equipment</li><li>• Put environmental services personnel on the improvement team</li><li>• Prioritise room cleaning and disinfection by focusing on frequently touched surfaces e.g. bedrails, doorknobs, bathroom fixtures, etc.</li><li>• Create a checklist for room cleaning</li><li>• Monitor and provide feedback on ward’s cleaning and disinfection compliance</li></ul> <p>Use dedicated equipment for patients with known or suspected infection/ colonization spread via direct or indirect contact.</p> <ul style="list-style-type: none"><li>• Educate staff on appropriate management of equipment</li><li>• Ensure availability of required supplies</li><li>• Monitor and provide feedback on availability and compliance with use</li></ul> <p><b>Optimise antimicrobial prescribing</b></p>
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	<ul style="list-style-type: none"> <li>• Use protocols and auto-stop points for antibiotics</li> <li>• Establish formulary restriction</li> <li>• Establish clinical practice guidelines with standardised order sets</li> <li>• Standard order sets contain pre-approved indications (best if part of computerized physician order entry)</li> <li>• Pharmacy substitution/switch; protocol-driven IV/PO switch</li> <li>• Provide unit specific/provider utilisation feedback</li> <li>• Therapeutic de-escalation</li> <li>• Computer-assisted antibiotic management</li> <li>• Antibiotic cycling</li> <li>• Monitor and feedback on exception reporting</li> </ul> <p>Use decolonisation to decrease burden of organisms</p>
Open communication between team, child and family.	<p>Include family in multi-disciplinary rounds.</p> <p><b>Include child, young person or family in daily goal setting.</b></p>
Child/family involvement in daily goal setting	<p>Establish processes to promote open communication among caregivers and family:</p> <ul style="list-style-type: none"> <li>• Institute open visitation for families in PICUs/HDUs.</li> <li>• Request families' support care by asking questions, checking HOB.</li> <li>• Use grease boards to enhance communication between team and families.</li> <li>• Use voicemail systems for family communication.</li> </ul>
Joint end of life care planning	<p>Establish reliable processes to clarify care wishes and provide end of life care planning:</p> <ul style="list-style-type: none"> <li>• schedule routine family meetings to discuss care wishes;</li> <li>• establish and publicise end of life care team;</li> <li>• establish triggers for automatic consultation to end of life care team.</li> </ul>
Child/young person's physical and environmental comfort	<p>Involve child, young person or parent in care planning.</p>



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<p>Reliable care planning, communication and collaboration of a multidisciplinary team.</p>	<p><b>Institute multi-disciplinary rounds</b></p> <ul style="list-style-type: none"> <li>include paediatricians, nurses, end of life care, pharmacy, physiotherapy, nutrition, case managers, social work, chaplaincy, family members and other key care team members in rounds;</li> <li>use discipline-specific rounding and prep sheets to prompt clinicians on key items to address during rounds.</li> </ul> <p><b>Institute safety briefings</b></p> <ul style="list-style-type: none"> <li>Focus on patients with increased risk for injury, for example, head trauma, receiving high risk drugs.</li> </ul> <p><b>Standardise clinical communications – escalations and handovers</b></p> <ul style="list-style-type: none"> <li>Use SBAR format: Situation, Background, Assessment, Recommendation.</li> <li>Use standard handover templates.</li> </ul> <p>Establish emergency scenario-based team training programmes.</p> <p>Staff with improvement skills:</p> <ul style="list-style-type: none"> <li>SPSPP workstream huddles.</li> <li>Use measures to view outcomes over time.</li> <li>Publish timely feedback on progress towards critical care aims.</li> </ul>
<p>Optimal flow of children and young people through paediatric wards.</p>	<p>Structured communication techniques for admission and discharge handovers.</p>
<p>Infrastructure and leadership to deliver consistent and reliable, evidence based care.</p>	<p>Assign leadership for critical care workstream.</p> <p>Timely, regular feedback to clinicians of quality and safety performance measures:</p> <ul style="list-style-type: none"> <li>paediatric ward feedback/learning from paediatric mortality &amp; trigger tool reviews.</li> </ul>
<p>Timely, regular feedback to clinicians of quality and safety performance measures.</p>	<p><b>Feedback from paediatric trigger tool</b></p> <p>Feedback from mortality reviews</p>
<p>Staff with improvement skills.</p>	<p>SPSPP workstream huddles</p> <p>Use measures to view outcomes over time.</p> <p>Publish timely feedback on progress towards paediatric ward aims and outcomes.</p>

