## Model for Improvement Key Points

<table>
<thead>
<tr>
<th>Why A Model? What Purpose?</th>
<th>Improvement Principles</th>
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<tbody>
<tr>
<td>▪ Provide organizing structure to guide thinking</td>
<td>▪ Listen to patients and families</td>
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<td>▪ Ensure discipline and thoughtfulness</td>
<td>▪ Tap knowledge of the system by involving staff</td>
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<td>▪ Support improvement principles</td>
<td>▪ Understand processes and interactions in system</td>
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<tr>
<td>▪ Facilitate improvement</td>
<td>▪ Use disciplined method in successive cycles to test changes</td>
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<tr>
<td>▪ Foster common language</td>
<td>▪ Test on small scale; move rapidly to improve</td>
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<td>▪ Measure to learn and to understand variation</td>
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### Model for Improvement

#### 3 Key Questions for Improvement

1. **What are we trying to accomplish?**
   - **AIM**

2. **How will we know that a change is an improvement?**
   - **MEASURES**

3. **What changes can we make that will result in an improvement?**
   - **IDEAS**

![Diagram showing the cycle of Plan, Do, Study, Act (PDSA) for testing ideas and changes in cycles for learning and improvement.]

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Model for Improvement Key Points

Question 1: What are we trying to accomplish?

AIM: A specific, measurable, actionable, realistic, and time-bound (SMART) statement of expected results of an improvement process.

A strong clear aim gives necessary direction to improvement efforts, and is characterized as:

- Intentional, deliberate, planned
- Unambiguous, specific, concrete
- Measurable with a numeric goal, preferably one that provides a “stretch” to motivate significant improvement
- Aligned with other organizational goals or strategic initiatives
- Agreed upon and supported by those involved in the improvement and leaders

Make your aim actionable and useful. Include:

- A general description of what you hope to accomplish
- Specific patient population who will be the focus
- Some guidance for carrying out the activities to achieve aim

Question 2: How will we know that a change is an improvement?

MEASURES: Measures are indicators of change. To answer this key question (“How will we know that a change is an improvement”), several measures are usually required. These measures also can be used to monitor a system’s performance over time. In Plan-Do-Study-Act (PDSA) cycles, measurement used immediately after an idea or change has been tested helps determine its effect.

In improvement, key measures and measurement should:

- Clarify and be directly linked to goals
- Seek usefulness over perfection
- Be integrated into daily work whenever possible
- Be graphically and visibly displayed
- For PDSA cycles, be simple and feasible enough to accomplish in close time proximity to tests of change
Model for Improvement Key Points

Question 3: What changes can we make that will result in an improvement?

IDEAS: Ideas for change or change concepts to be tested in a PDSA cycle can be derived from:

- Evidence or results of research/science
- Critical thinking or observation of the current system
- Creative thinking
- Theories, questions, hunches
- Extrapolations from other situations

When selecting ideas to test, consider the following:

- Direct link to the aim and goals
- Likely impact of the change (avoid low-impact changes)
- Potential for learning
- Feasibility
- Logical sequencing
- Series of tests that will build on one another
- Scale of the test (3 patients, NOT 30)
- Shortness of the cycle (1 week, NOT 1 month)

Tips to make the most of PDSA cycles and tests of change:

- Think a couple of cycles ahead
- Plan multiple cycles to test and adapt change
- Scale down size of test (# of patients, location)….A “cycle of 1” is often appropriate
- Do more cycles, at a smaller scale and faster pace instead of fewer, bigger, slower
- Test with volunteers first
- Don’t seek buy-in or consensus for the test
- Be innovative and flexible to make test feasible
- Collect useful (and only just enough) data during each test
- Test over a wide range of conditions
- Learn from failures as well as successes
- Communicate what you’ve learned
- Engage leadership support
Model for Improvement Key Points

Repeated PDSA Cycles To Test A Change

Data → Information → Knowledge & Learning

Changes that result in improvement

Ideas

Refinements & Adaptations to Original Idea

Successive tests of a change build knowledge & create a ramp to improvement

Test Ideas & Changes in Cycles for Learning & Improvement

- What refinements or modifications need to be made
- What’s the next cycle?

- Objective
- Questions & predictions (What will happen & why)
- Plan to carry out the cycle (Who, what, where, when)

- Complete analysis
- Compare to predictions
- What did you learn?
- What conclusions can you draw from this test?

- Carry out the plan
- Document experience, problems, surprises
- Collect data as planned; begin analysis

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