Objective

1. Identify concept of change package
2. Develop skills using “change concepts” to stimulate ideas for change
3. Identify change concepts most useful for your project
Developing Second Order Changes

1. **Logical (critical) thinking about the current system** (page 120-123) (reflecting on current system and use existing subject-matter (IH Ch 10 and 11)

2. **Benchmarking or learning from others** (page 123-125)

3. **Using technology** (p 125-127) practical applications of science. IT systems. Cautions

4. **Creative thinking** (p 128-131) inventing of a new idea, Managing the thinking : creative thinking, logical positive thinking, logical negative thinking

5. **Using Change Packages** (page 119) a document listing evidence-based or best practice changes specific to a topic

6. **Using change concept** (page 131-136) A change concept is a general notion or approach that has been found to be useful in developing ideas for change that result in improvement. Change concept can be used to stimulate both critical and creative thinking.

Change Packages

- A collection of good ideas ready for use
- Tests of change, known to bring about improvement
- Proved ideas
- Based in research (might include level of evidence)
- Clinical guidelines
- Experience
- Usually organized around a model or framework
**Part of Change Packet - Chronic Care Model: More At End of This Unit**

**Model Component:** Delivery System Design

<table>
<thead>
<tr>
<th>CHANGE CONCEPT</th>
<th>KEY CHANGES</th>
<th>EXAMPLES OF TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define roles and distribute tasks among team members</td>
<td>Define and develop the team as a unit Determine process for care and assign team members to tasks Match the work to the individual's licensure and capability Cross train staff Use protocols and standing orders for care. (<a href="#">see decision support.</a>)</td>
<td>Have receptionist obtain history, recent health info and VS, MD examines, RN does self-management and follow-up Determine back-up staff for each task Use protocols Use clinical micro system workbook to get to know team and work that needs to be done and adapt staffing appropriately</td>
</tr>
<tr>
<td>Use planned interactions to support evidence-based care.</td>
<td>Use 1:1 visits to review current status, deliver evidence-based services and optimize disease control Use group visits to deliver care to interested patients Predict clinical needs of patients (<a href="#">see Clinical Info Systems</a>)</td>
<td>Invite patients with chronic care needs in for a planned visit. Use registry to proactively contact patients for follow-up. Pre-arrange telephone or email follow-up at end of visit. Have nurses do stepped protocols for appropriate patients Have nurses do self-management support for patients in need of self-monitoring skills. Inform patients of visit agenda at beginning of visit, check to see if that meets their expectations. (&quot;You are here today for your arthritis. I am going to review your self-management plan, assess your pain and function and then we will talk about next steps. Does that sound like what you were expecting today?&quot;&quot;)</td>
</tr>
</tbody>
</table>

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**Example**

**Change Package**

**AIM**

- Improve the outcomes of care for children with inflammatory bowel disease
- Accurate diagnosis and disease classification
- Appropriate drug selection
- Appropriate drug dosage
- Adequate nutritional intake
- Appropriate growth monitoring

**Specific Ideas for Change**

1. Registry and Population Management tool
2. Pre-Visit Planning
3. Clinical Protocols
4. Auditing Delivery of Drug Dosage
5. Self-Management Support
Identify & rescue worsening patients

Provide appropriate, reliable and timely care to high-risk and critically ill patients using evidence-based therapies

Create highly effective multi-disciplinary team

Integrate patient & family into care so they receive care they want

Develop an infrastructure that promotes quality care

Desired Outcomes:
Decrease
• Mortality
• Complications
• Costs
Improve
• Satisfaction

Driver Diagram: Improving Outcomes for High-Risk and Critically Ill Patients

Primary Drivers:
- P1. Identify & rescue worsening patients
- P2. Provide appropriate, reliable and timely care to high-risk & critically ill patients
- P3. Protocols and Standing Order Sets

Secondary Drivers:
- S1. Rapid response system
- S2. Early warning systems
- S3. Protocols and Standing Order Sets

Specific Changes:
See next page

Example:
Another way to organize change package:

Driver Diagram
IG: PP. 286, 412, 429

Primary Driver | Secondary Driver | Key Change Concepts | Specific change ideas
--- | --- | --- | ---
P1. Identify & rescue worsening patients | S1. Rapid response system | Implement a Rapid Response Team | Standardize call criteria
| | | Define response team members (including a sponsor) | Review call criteria effectiveness
| | | Establish protocols/guidelines | Test/Add an Early Warning system
| | | Educate units about when and how to call | Review missed opportunities (e.g. unscheduled transfers to ICU)
| | | Create process to gather data about calls | Work towards “goal” call rate
| Perfect triggering | | | |
| | | |
| Perfect responding | | | |
| | | | Develop discipline-specific criteria for team members
| | | Review team performance in three spheres: care provided, response time, and caller satisfaction
| | | Develop tool box to be brought to activations (examples: i-stat, IV tubing, lab tubes, BP cuff, documentation form)
| | | Do data review
| | | Track response time
| | | Review overall process to evaluate need to improve
| | | Develop data tool for tracking
| Perfect evaluation | | | Test a measurement tool such as MEWS
| | | Use an overall bed-board to assess layout of unit
| | | Create a process for use of scoring tools
| | | Create rules for when to call RN, MD, and activate system
| | | Improve identification of severe sepsis
| | | Apply the Evaluation for Severe Sepsis Screening Tool in clinical areas such as the ED, wards, and ICU
| | | Have nurses and Rapid Response Team complete severe sepsis screening

Flow
Leadership
Financial Stewardship

9-22-07
IHI
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Using Change Concepts

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**Concept**

An opportunity to create a new connection

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**Thought Process**

- Specific idea A
- Specific idea B
**Figure A.1 Complete List of Change Concepts**

1. Eliminate things that are not used
2. Eliminate multiple entry
3. Reduce or eliminate overkill
4. Reduce controls on the system
5. Recycle or reuse
6. Use substitution
7. Reduce classifications
8. Remove intermediaries
9. Match the amount to the need
10. Use Sampling
11. Change targets or set points
12. Synchronize
13. Schedule into multiple processes
14. Minimize handoffs
15. Move steps in the process closer together
16. Find and remove bottlenecks
17. Us automation
18. Smooth workflow
19. Do tasks in parallel
20. Consider people as in the same system
21. Use multiple processing units
22. Adjust to peak demand
23. Match inventory to predicted demand
24. Use pull systems
25. Reduce choice of features
26. Reduce multiple brands of the same item
27. Give people access to information
28. Use proper measurements
29. Take Care of basics
30. Reduce de-motivating aspects of pay system
31. Conduct training
32. Implement cross-training
33. Invest more resources in improvement
34. Focus on core process and purpose
35. Share risks
36. Emphasize natural and logical consequences
37. Develop alliances/cooperative relationships
38. Listen to customers
39. Coach customer to use product/service
40. Focus on the outcome to a customer
41. Use a coordinator
42. Reach agreement on expectations
43. Outsource for “Free”
44. Optimize level of inspection
45. Work with suppliers
46. Reduce setup or startup time
47. Set up timing to use discounts
48. Optimize maintenance
49. Extend specialist’s time
50. Reduce wait time
51. Standardization (Create a Formal Process)
52. Stop tampering
53. Develop operation definitions
54. Improve predictions
55. Develop contingency plans
56. Sort product into grades
57. Desensitize
58. Exploit variation
59. Use reminders
60. Use differentiation
61. Use constraints
62. Use affordances
63. Mass customize
64. Offer product/service anytime
65. Offer product/service anywhere
66. Stress intangibles
67. Influence or take advantage of fashion trends
68. Reduce the number of components
69. Disguise defects or problems
70. Differentiate product using quality dimensions
71. Change the order of process steps
72. Manage uncertainty, not tasks

**Reference IG**

**Appendix A**

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**Concepts to Ideas**

- **Conceptual, Vague, Strategic**
  - **Make an Improvement**
  - Redesign the process or order fulfillment
  - Move steps in the process closer together (#15)
  - Move order receipt and warehouse closer together
  - Move the printer that prints orders into the warehouse
  - Write a work order to have the fax moved on Monday

- **Specific Ideas, Actionable**

**PDSA Cycle**

---
Packaged by Others as a Particular Approach to Making Improvements

“Lean” (aka Toyota production System) includes most of concepts 1 through 27 and number 71, which deal with eliminating waste, improving work flow, and optimizing inventory.

“Six Sigma” includes most of concepts 51 through 62, which focus on managing variation and designing systems to avoid mistakes.

Throughput and Cycle Time programs include concepts 46 through 50, which deal with ways to better manage time,

Customer service programs usually contain many of concepts 28 through 40, which are related to enhancing the producer-customer relationship and changing the work environment,

Supply Chain Improvement programs contain some of the concepts numbered 12 through 27 and 40 through 45, relating to improving work flow and optimizing inventory.

Product Design programs contain many of the change concepts 63 through 70 and 72, which focus on a product or service.

Change Concept #51 - Standardize

Perform the same task in the same way. Performing the same task in a variety of ways results in broad variation in practice, a reduced ability to monitor outcomes, and wasted time, effort, and money.

Examples:

a) to increase the percentage of eligible patients discharged on ACE Inhibitors, implement standing orders for initiation of ACEI’s during the hospital stay for all patients admitted with a diagnosis of CHF, unless contraindicated;

b) to increase the percentage of patients with daily weights recorded, include daily weights in a CHF management protocol that includes standing orders; and

c) implement standardized discharge teaching methods, including pre-printed discharge instructions that allow for customization for an individual patient; and

d) document NYSA class, EF% and euvoletic weight in discharge summary.
Putting A Change Concept Into Practice

1. Choose a change concept that someone on the team thinks might contain some ideas that would be useful to the aim of the improvement effort.

2. Choose change concepts that have not been previously considered by the team.

3. Select one of the categories that is related to the aim of the improvement effort. Then randomly choose one of the change concepts in that category.

4. Randomly choose a change concept from the list of 72.

Team Exercise

1. Choose a change concept that someone on the team thinks might contain some ideas that would be useful to the aim of the improvement effort.

2. Read the change concept description in Appendix A

3. Talk through and record moving from concept to specific actionable change idea – something you could take to testing

4. Choose another change concept and repeat steps 2 and 3

5. Will ask for one team to volunteer to share their thought processes
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The Improvement Guide, Chapter 6, p. 120