

***Solutions for Improving  
Clinic Flow and  
Reducing Delays***

**Assessing Existing Clinic Flow  
Creating Flow Stations  
Unscheduled Patient Arrivals**

**March 30, 2014**

James Shirley Management Consultants, Inc.



*Making processes better for people*

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**James Shirley Management Consultants, Inc.**  
**7341 East 84<sup>th</sup> Place**  
**Tulsa, Oklahoma 74133**  
**918.830.5927**

# Solutions for Improving Clinic Flow and Reducing Delays

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## **I. Assessing Existing Clinic Flow: Defining and Tracking Flow**

1. Define the flow of patients, physicians, nurses, medical assistants and front-office staff using a value stream map (*Exhibit 1*) to show process steps, delays, defects and bottlenecks.
2. Design and implement tracking processes to gather and measure time data on the flow process. (*Exhibit 2*)
3. Analyze processes and data to identify waiting, defects and confusion that do not add value to the flow of work in the clinic. (*Exhibit 3*)
4. Develop recommendations and test methods to improve and control clinic flow.

## **II. Creating Flow Stations:[1] Using Continuous Improvement.**

1. Use Continuous Improvement methods to evaluate indirect care (nonvisit work). (*Exhibit 4*)
2. Redesign physician work so nonvisit work is completed in flow between seeing patients.
3. Create a Flow Station for Medical Assistants to work on email messages, some telephone calls, and other delegated indirect work while the physician is caring for patients.
4. Ensure physicians complete about two minutes of indirect work before seeing the next patient.
5. Add new work for Medical Assistants with patients, such as: checking allergies, verifying medications, updating status of preventive tests and screenings.
6. Continue to work on skill-task alignment to focus the correct person at the correct time.
7. Develop standardized work (precise work sequence/time) for each position in the Flow Station.
8. Ensure the layout of the flow station is effective and only work that is required for the physician reaches the flow station.

## **III. Unscheduled Patient Arrivals: Implementing Key Strategies to Improve Flow (Exhibit 5) [2]**

1. Focus on demand-capacity (patient needs – physicians available) management.
2. Implement real-time monitoring of patient flow.
3. Forecast the service demand.
4. Use queuing theory (waiting line theory) to evaluate patient and physician flow.
5. Use the Theory of Constraints to identify bottlenecks in flow.
6. Manage variation in arrivals and service times to improve operations efficiencies.
7. Clearly communicate the aim of the system and ensure effective teamwork.

### References:

[1] Transforming Health Care – Virginia Mason Medical Center's Pursuit of Perfect Patient Experience  
CRC Press, 2011, Charles Kenney

[2] Hardwiring Flow: Systems and Processes for Seamless Patient Care, Studer Group, 2009, Thom Mayer, MD, FACEP,  
FAAP and Kirk Jensen, MD, MBA, FACEP

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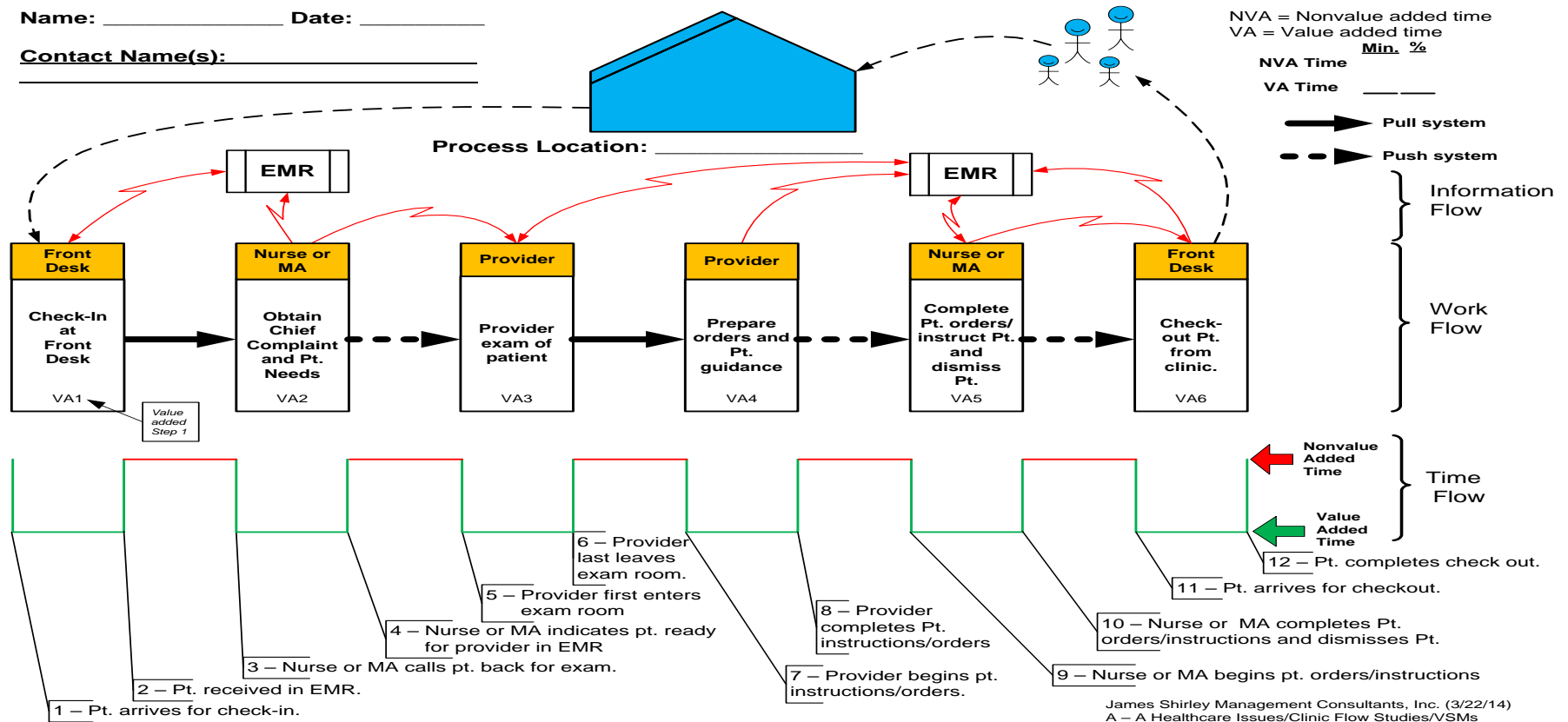
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## Exhibit 1

### Clinic Flow Project - Value Stream Map – James Shirley Management Consultants, Inc.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Contact Name(s): \_\_\_\_\_



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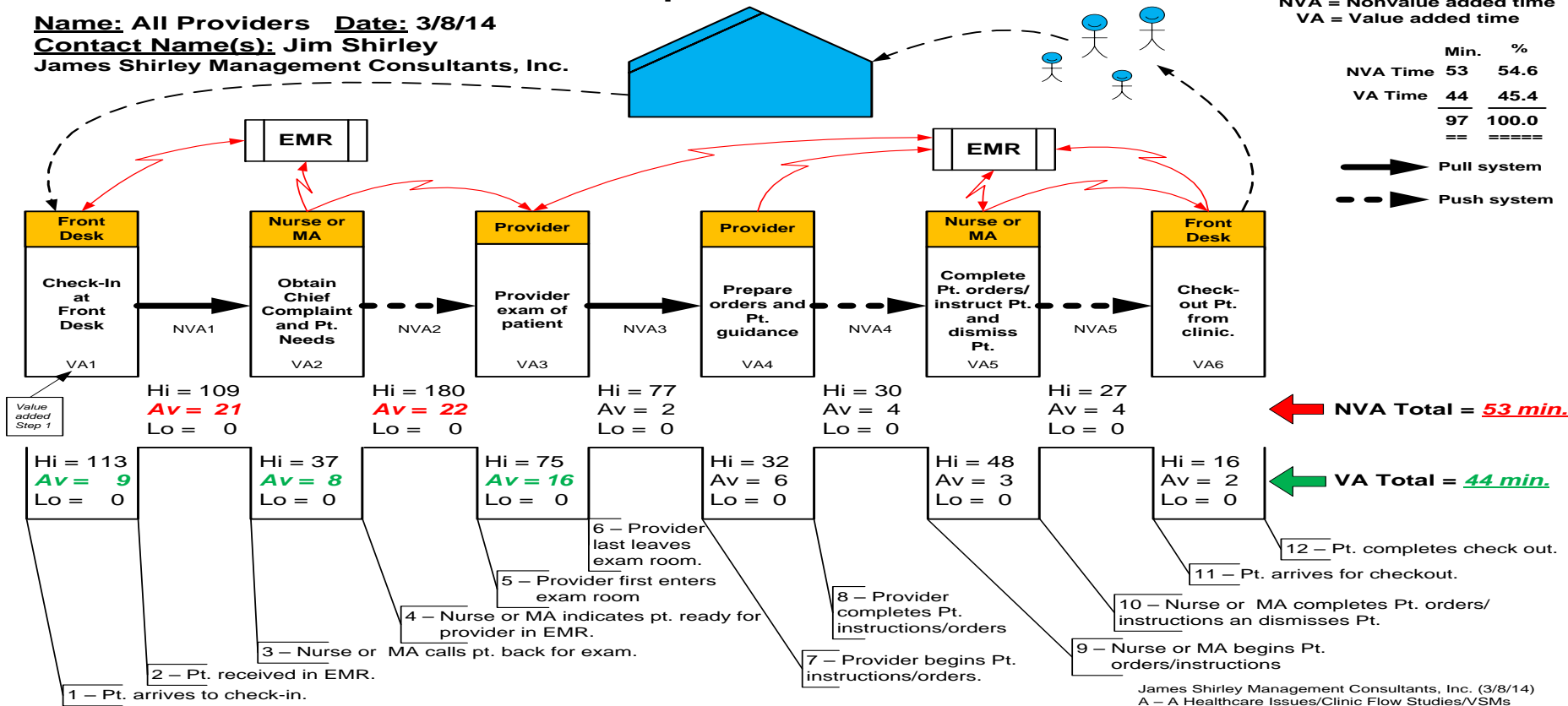
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## Exhibit 2

### Example of Clinic Data from Clinic Flow Project Value Stream Map – Patient Visit with Provider

**Name:** All Providers **Date:** 3/8/14  
**Contact Name(s):** Jim Shirley  
James Shirley Management Consultants, Inc.



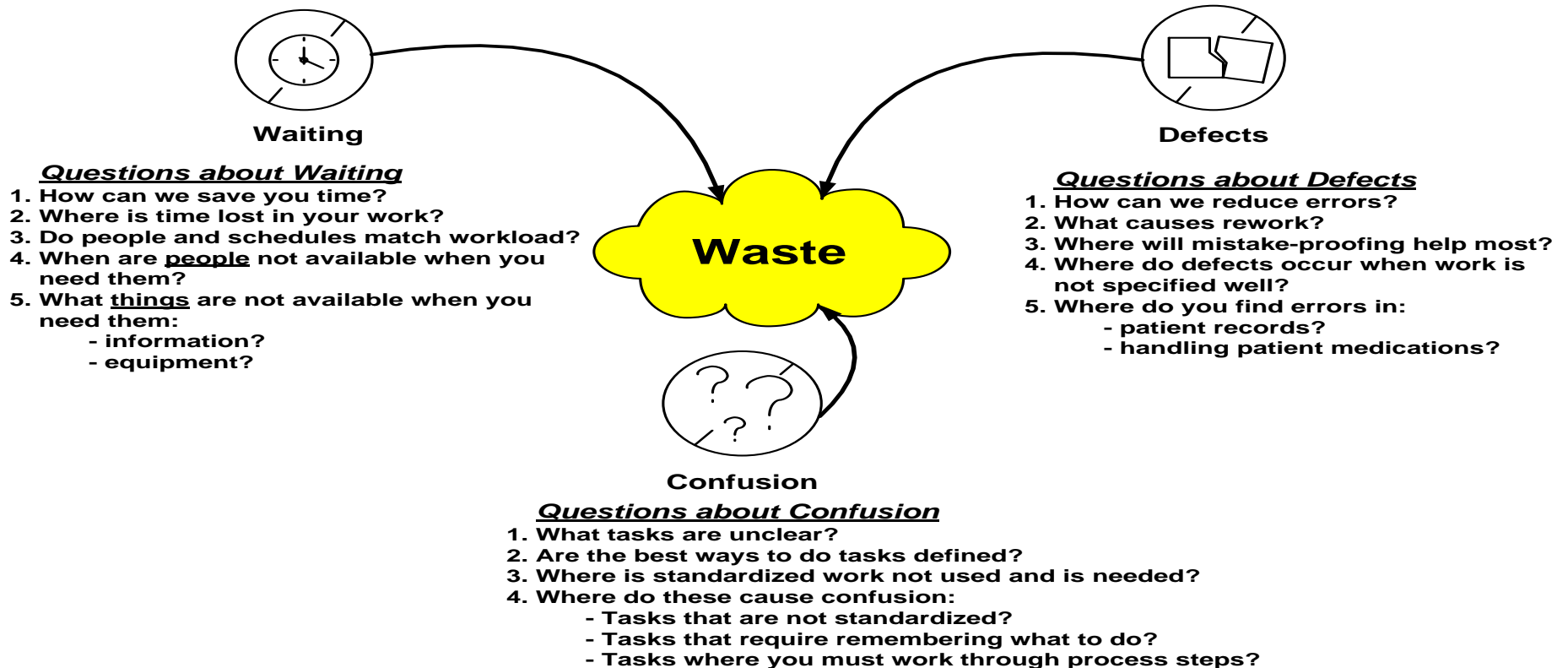
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Exhibit 3

## Analyze Processes and Data to Reduce Waiting, Defects and Confusion in Flow <sup>(1,2)</sup>



[1] *A3 Problem Solving for Healthcare* by Cindy Jimmerson, CRC Press, Taylor & Francis Group, an Informa business, A Productivity Press Book

[2] *Lean Hospitals* by Mark Graban

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[A HC Issues/Flow/Pt Flow Guidelines - 3/28/14]

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Exhibit 4

## Three Components of Continuous Improvement Lean Thinking – Six Sigma – Change Management

### Continuous Improvement

#### Lean Thinking <sup>[1]</sup>

**Focus:** Reduce waste in time, cost and work and improve speed.

**Major Steps**

1. Specify **value** from customer's point of view.
2. Identify **value stream** and eliminate waste.
3. Ensure **flow** of work goes smoothly from one stage to another.
4. Implement standardized work and **pull**, not push.
5. Continuously reduce waste and work toward **perfection**.

**Outcomes**

1. Most successful results in improving healthcare performance.
2. Patient and staff satisfaction are high.
3. Everyone contributes to improving work.

[1] *Doing More with Less: LEAN THINKING and Patient Safety in Health Care*, Joint Commission Resources; Senior Editor: Robert A. Porche, Jr., 2006

[2] *Lean Six Sigma for Service* by Michael L. George, McGraw Hill, 2003

[3] *The Heart of Change* by John Kotter and Dan Cohen, Harvard Business School Press, 2002

#### Six Sigma <sup>[2]</sup>

**Focus:** Remove errors and defects from systems and processes.

**Major Steps**

1. **Define** – Agree on the problem, customer impact, project boundaries.
2. **Measure** – Establish baseline metrics, observe the process, collect data.
3. **Analyze** – Analyze the data for patterns that may point to root causes.
4. **Improve** – Improve the process to eliminate defects and other wastes.
5. **Control** – Ensure gains made will be preserved using new procedures and training.

**Outcomes**

1. Significant improvements in quality and process performance.
2. Goal is less than 3.4 errors per million opportunities.
3. Highly trained team of improvement experts called "Black Belts."

#### Change Management <sup>[3]</sup>

**Focus:** Effectively lead change efforts to improve performance.

**Major Steps**

1. Increase **urgency**.
2. Build a **guiding team**.
3. Get the **vision** right.
4. **Communicate** for buy-in.
5. **Empower** action.
6. Create **short-term wins**.
7. **Don't let up**.
8. **Make change stick**.

**Outcomes**

1. Short-term wins guide major change efforts.
2. Change efforts are successful.
3. Performance improvements are successfully implemented.

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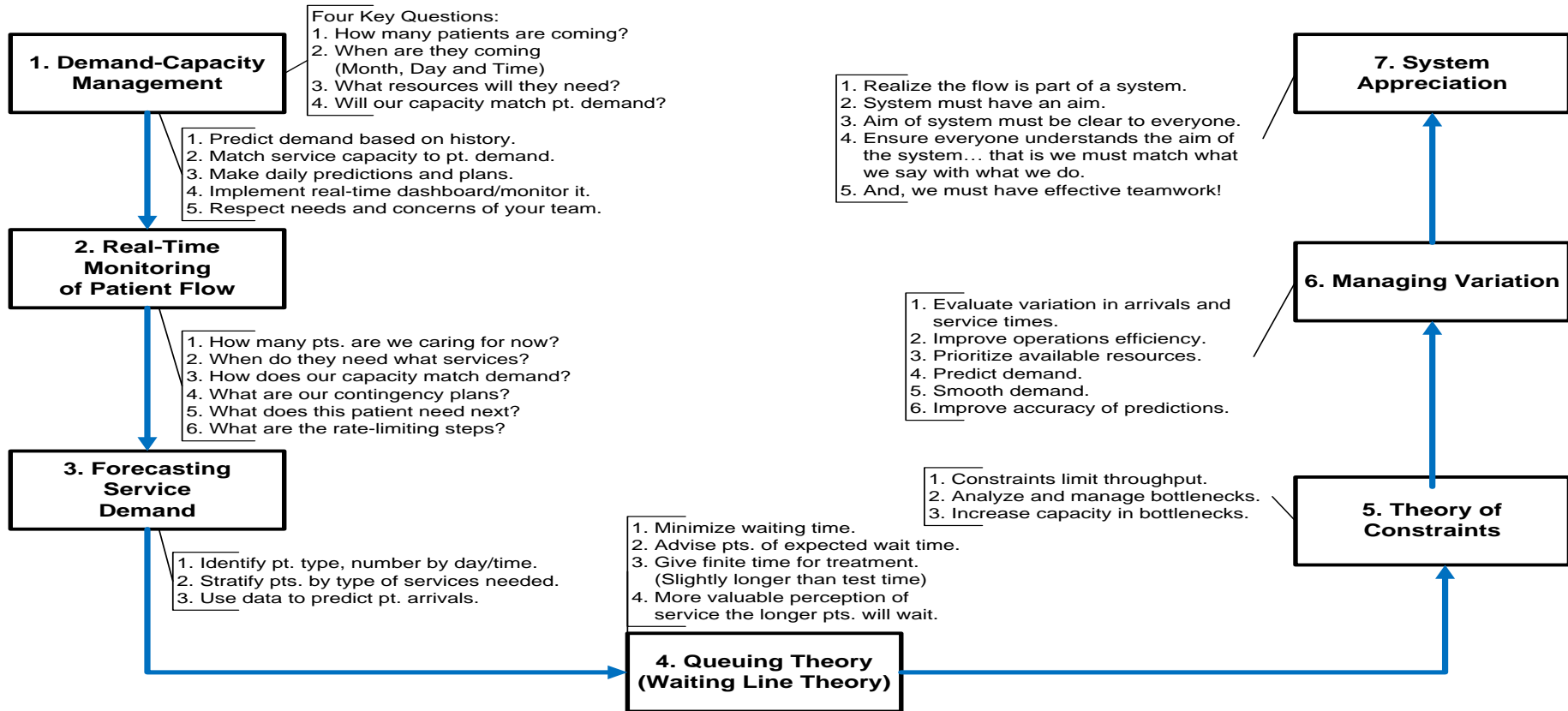
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## Exhibit 5

### Key Strategies for Improving Flow with Unscheduled Patient Arrivals<sup>[1]</sup>



[1] *Hardwiring Flow – Systems and Processes for Seamless Patient Care*  
 Thom Mayer, MD, FACEP, FAAP and Kirk Jensen, MD, MBA, FACEP

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 A HC Issue/Flow/Pt Flow Guidelines (3/23/14)