FOOD SAFETY: From Farm To The Fork
SingHealth Congress 2016
18 August 2016
Patient experience refers to the sum of all interactions shaped by an organisation’s culture that influences patient’s perceptions across the continuum of care.
PATIENTS EXPECTATIONS- A Growing Scenario

PATIENT SATISFACTION SURVEY

Waiting Time

Nursing and Medical Care

Value for Money

CONSUMER HEALTH INSIGHT SURVEY

Nursing & Doctor Empathy (Care)

Quiet environment

Pain Management

Cleanliness
PATIENTS EXPECTATIONS- A Growing Scenario

Right of the patient as a legal citizen of the country

SAFETY IS CONSIDERED BY DEFAULT

Moral and legal obligation of the hospital as a care provider
HOW IMPORTANT IS FOOD IN A HOSPITAL?- A Reality

- Malnourishment
- Increased morbidity and medical complications
- Prolonged malnourishment
- Longer hospital stay
- Hospital re-admission
- Mortality

- Malnourishment

- Increased morbidity and medical complications

- Longer hospital stay

- Hospital re-admission

- Mortality
**HOSPITAL FOOD - What Do Patients Think?**

Comfort food exists but comfort medicines do not!!

- Familiarization with the food
- Emotional state of the patient
- Growing expectations parallel to the medical care

**THREE** aspects of food that patients look for:

- Temperature
- Appearance
- Taste
Loss of almost **33 million** healthy lives due to compromised food safety globally (WHO, 2014)

Unsafe food can cause **200 various diseases** ranging from diarrhea to cancer.

MOH estimates that ~**0.1 million** people seek medical care due to food borne outbreaks each year.
WHAT JEOPARDISES FOOD SAFETY IN A HOSPITAL?

- Contaminated food
- Serving wrong diet to patient
- Compromised hygiene standards while serving food to the patient
- Inappropriate/incomplete food portions
- Inappropriate practices of food consumption
“As to diseases, make a habit of two things — to help, or at least, to do no harm” - Hippocrates

THE ARGUMENT:
A patient with an immune-compromised system is prone to adversities of food / medical safety in a parlous manner
FOOD SAFETY - What is it?

It is a scientific disciplinary approach that ensures handling, preparation, storage and serving of the food is in a way that **PREVENTS FOOD BORNE ILLNESSES**.

It is a process that ensures safe food is delivered **AT ALL TIMES**.

Ensure safe food

Food safety regulations in a food business

Give consumers confidence on safety of food

Ensure premises handling the food are suitable
CONTINUOUS QUALITY IMPROVEMENT - An Imperative Approach

Risk Management

Quality Sustainability & Improvement

Utilization Review
SAFE FOOD

Provides framework for monitoring and guidance to ensure required levels of food safety.

Captures end-to-end processes and circumvents the risks associated.

Meticulously manages the critical control points.
In Singapore, the hospital food service could be a mix of above three classes but mostly falls in the category of Class 3

- Food services has evolved into a full-fledged department with sub departments each managing their own processes
- Decentralized yet aligned with required standards
- Either run in-house or outsourced
- Serve cook-fresh (mostly)
- Well-developed food service team on-site
RISK MANAGEMENT STEP 2

Develop a **FOOD SAFETY PROGRAM** which should:

- be compliant with food standards and approved procedures/guidelines in implementing food safety requirements
- develop, maintain and review the food safety program
- provide for adequate design, construction (if applicable) and maintenance of food service facilities/equipment
- arrange for audits of the accredited food safety program in accordance with the set standards
- provide staff training
- investigate complaints and take action to remedy non-compliances
RISK MANAGEMENT STEP 3

Process mapping - IPO model

**INPUT**
- Land (Kitchen space)
- Labor (people)
- Capital (equipment, raw material)
- Scope of work
- Goals and targets

**PROCESSES**
- Procedures
- Policies
- Standard operating procedures

**OUTPUT**
- Safe Food

- Staff turnover
- Equipment breakdown
- Shortage of manpower
- Shortfall of inventory
- Non-compliance of procedures
RISK MANAGEMENT - Different Stop Gates

IN THE KITCHEN
- Holding & Belting
- Preparation
- Purchasing

DURING SERVICE
- Meal Consumption
- Meal Service
- Meal Ordering
- Menu Planning

Risk Management
Quality Improvement & Sustainability
Utilization Review

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Site level – a dedicated personnel managing purchasing
- Fully trained to order from a well-managed and controlled system
- Conduct critical checks of goods upon reception
- Must be HSE trained
- Well-versed with processes such as product recall and product return
FIRST STOP GATE- Supply Chain Management

POTENTIAL HAZARDS TO LOOK FOR UPON RECEIVING GOODS

Biological  Chemical  Physical

RISK MITIGATION

Buy from reputable supplier  Carry out visual inspection  Temperature checks and right storage  FIFO to be in place  Second shelf-life labeling  Obtain specification sheet from suppliers

Risk Management  Quality Improvement & Sustainability  Utilization Review

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RISK MANAGEMENT - Different Stop Gates

IN THE KITCHEN
- Holding & Belting
- Preparation
- Purchasing

AT SERVICE
- Meal Consumption
- Meal Service
- Meal Ordering
- Menu Planning

Risk Management  
Quality Improvement & Sustainability  
Utilization Review
After Food is purchased, the next stop on the journey is **MEAL PREPARATION**.

During meal preparation, there are **6 CRITICAL CONTROL POINTS** where food safety may be compromised, leading to unsafe food.
SECOND STOP GATE - Meal Preparation

Freezer storage

Thawing/Defrosting

Chill storage

Cooking

Holding

Receiving

Risk Management

Quality Improvement & Sustainability

Utilization Review
RISK MANAGEMENT- Different Stop Gates

IN THE KITCHEN
- Holding & Belting
- Preparation
- Purchasing

AT SERVICE
- Meal Consumption
- Meal Service
- Meal Ordering
- Menu Planning
THIRD STOP GATE - Holding and Belting
RISK MITIGATION PLAN IN THE KITCHEN

- **Receiving**: Right storage
- **Frozen Stage**: Monitor freezer temp
- **Thawing**: Thaw at bottom of chiller
- **Chill Storage**: Monitor chiller temp
- **Belting**: Labelling
- **Cooking**: Right temperature, Proper PPE
- **Holding**: Good housekeeping
- **Preparation**: Proper PPE

From Farm to the Fork – 18 August 2016
RISK MANAGEMENT - Different Stop Gates

IN THE KITCHEN
- Holding & Belting
- Preparation
- Purchasing

AT SERVICE
- Meal Consumption
- Meal Service
- Meal Ordering
- Menu Planning
### FOURTH STOP GATE - Menu Planning

**SUNDAY**

<table>
<thead>
<tr>
<th>BREAKFAST</th>
<th>LUNCH</th>
<th>DINNER</th>
</tr>
</thead>
</table>

**FIRST STEP TO SAFE START** a food service program

- Menu to match with the hospital/patient requirements
- Resource provision
- Facility to be able to produce meals
- Staff to be able to produce meals
- Follow hospital protocols
- Portion sizes
- Recipe analysis (if necessary)

*HEALTHY MIND in a HEALTHY body*

Risk Management  
Quality Improvement & Sustainability  
Utilization Review  

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RISK MANAGEMENT - Different Stop Gates

IN THE KITCHEN

- Holding & Belting
- Preparation
- Purchasing

AT SERVICE

- Meal Consumption
- Meal Service
- Meal Ordering
- Menu Planning
FIFTH STOP GATE - Meal ordering

- Tap on technology
- Wrong diet - Fear of allergen
- Process/ specifications of first order and late meal is crucial
- Missing diet
- Recieving a meal when patient is not supposed to eat/ NBM
- Wrong Tray - Consuming other patient’s food

Risk Management
Quality Improvement & Sustainability
Utilization Review
IN THE KITCHEN
- Holding & Belting
- Preparation
- Purchasing

AT SERVICE
- Meal Consumption
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- Menu Planning

Risk Management
Quality Improvement & Sustainability
Utilization Review
**SIXTH STOP GATE - Meal Service**

- **Education is the first line of defence**
- **Segregate staff to have balanced workload**
- **Hand hygiene - A MUST**
- **Visual communications at the nursing board/patient’s door for any specifications**
- **Orders must be repeated before and while serving the food**
- **Diet card must be printed and matched with the patient’s identifiers**
- **Highlighted meal specifications must trigger STAR (Stop, think, act and review)**
- **Check on the cleanliness of crockery before portioning food**

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This page is from the document titled "From Farm to the Fork - 18 August 2016." It discusses various aspects of meal service in healthcare settings, highlighting the importance of education, hygiene, communication, and the use of STAR methodology to ensure quality and safety in food service.
HAND HYGIENE

HAND HYGIENE RESULT 2015- 2016 (INTERNAL AUDIT)

- Hand rub at each trolley
- Training & education
- Covert & overt shadowing
- Rewards & recognition
- Working with infection control department
- Reminders at each trolley

<table>
<thead>
<tr>
<th>Period</th>
<th>Hand Hygiene Result</th>
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<tbody>
<tr>
<td>Jan- Mar 15</td>
<td>23.6</td>
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<tr>
<td>Apr- Jun 15</td>
<td>32.8</td>
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<tr>
<td>Jul- Sep 15</td>
<td>54.5</td>
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<td>Oct- Dec 15</td>
<td>61.4</td>
</tr>
<tr>
<td>Jan- Feb 16</td>
<td>61.1</td>
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Risk Management | Quality Improvement & Sustainability | Utilization Review

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RISK MANAGEMENT - Different Stop Gates

IN THE KITCHEN
- Holding & Belting
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AT SERVICE
- Meal Consumption
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Risk Management
Quality Improvement & Sustainability
Utilization Review
SEVENTH STOP GATE- Meal Consumption

**MUST** - Within 2 hours of meal service

**MUST** - Constant reminders by staff

**MUST** - Clear trays at the stipulated times

**MUST** - Discarding the food/ labelling the food so that it is not eaten mistakenly
CONTINUOUS QUALITY IMPROVEMENT - An Imperative Approach

3 COMPONENTS

Risk Management

Quality Improvement & Sustainability

Utilization Review
QUALITY IMPROVEMENT AND SUSTAINABILITY - Overall Governance

- Competent On-site Team
- Food Safety Policy
- Training & Competence
- Audits
- Certification & Accreditation

Risk Management
Quality Improvement & Sustainability
Utilization Review
Food Safety Policy

- Risk minimizations for all food services operations
- Continuous information, training and supervision
- Effective procedures for food-related incidents and emergencies

Quality Assurance Measures

- Detailed checklists and schedule for each process, e.g. chiller temperature checklist, personal hygiene checklist, cleaning schedule, etc.
QUALITY IMPROVEMENT AND SUSTAINABILITY - Overall Governance

- On-site Team
- Robust Food Safety Policy
- Training & Competence
- Audits
- Certification & Accreditation

Risk Management
Quality Improvement & Sustainability
Utilization Review

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Do not store COOKED & RAW food together!

**PERSONAL HYGIENE AND PROPER ATTIRE AT WORK**

- Wear hair restraints at all times.
- Remove all jewelry. Nails must be clean and well cut.
- Uniforms must be neat and clean.
- Wear proper footwear / safety shoes.

**TOP 10 NON NEGOTIABLE IN FOOD SAFETY**

1. Taking Records (Temperature, cleaning, etc)
2. Food sampling (on daily basis, 100g weight kept for 3 days)
3. Personal Hygiene (Hairnets, gloves, Aprons, safety shoes, no Jewelry)
4. Washing hands thoroughly (before dealing with food and when necessary)
5. Report if sick (sick people should not come to work)
6. Coverlabel & store food properly (cooked food on top, then vegetables, then meat, then chicken)
7. Storage temperature control (chiller <4°C, Freezer >-18°C)
8. Core food temperature measurement
9. Thawing in chiller not at room temperature
10. Cooked food maintained at 63°C or above
QUALITY IMPROVEMENT AND SUSTAINABILITY - Overall Governance

- On-site Team
- Training & Competence
- Audits
- Certification & Accreditation
- Robust Food Safety Policy

Risk Management
Quality Improvement & Sustainability
Utilization Review
QUALITY IMPROVEMENT AND SUSTAINABILITY- On-Site Team

Regular medical check-up

- Pre-medical check-up and for any staff with past history of TB or any such contagious disease, follow-up shall be more regular
- Yearly medical check-up is advised
- Staff is encouraged to share if anyone in the family is sick

Proper Personal Protective Equipment (PPE)

- All staff and visitors are required to wear PPE at all times during their work or visit to the kitchen
QUALITY IMPROVEMENT AND SUSTAINABILITY - Overall Governance

- On-site Team
- Robust Food Safety Policy
- Training & Competence
- Audits
- Certification & Accreditation
- Risk Management
- Quality Improvement & Sustainability
- Utilization Review
QUALITY IMPROVEMENT AND SUSTAINABILITY - Audits

Internal Audit
- 3 times per year

External Audit
- 3 times per year
- Done by external auditing firm

Sampling Analysis
- Equipment swab
- Hand swab
- Food swab (Cooked & Ready to-eat items)
QUALITY IMPROVEMENT AND SUSTAINABILITY - Overall Governance
QUALITY IMPROVEMENT AND SUSTAINABILITY - Accreditations

International Standards

[Images of accreditations]

Local Standards

[Images of local standards]
3 COMPONENTS

Risk Management

Quality Improvement & Sustainability

Utilization Review
Prospective
- To determine the best approach/method to manage/control CCP
- Ensure that things will be safe and effective
- Streamline things that may not be necessary - Go Lean

Concurrent
- To ensure right processes are followed at all times and right result is delivered.
- The intent is to reduce errors in the ongoing system.

Retrospective
- It involves reviewing/evaluating and learning from potential issues and lapses
- Reviewing after the service has been delivered to see the impact and identify any gaps/scope of improvement.

Utilization Review

Risk Management
Quality Improvement & Sustainability
Utilization Review
Minor non-compliance

- A low risk situation; overall food safety system is still effective in controlling food safety hazards
- Can be managed with a verbal warning/counseling

Major non-compliance

- One where the food safety is ‘likely’ to be violated and/or may lead to the handling of unsafe or unsuitable food if no remedial action is taken
- Can be managed by verbal warning and a written feedback with an action plan

Critical non-compliance

- A serious breach of safety regulation where the contravention poses an imminent risk to the safety of food intended for service
- Followed by immediate verbal warning and a written compliant/action of plan
- The follow-up is immediate and within a short period of time.
Crucial to educate the patient about the safety measures to be followed:

- Timely consumption of food
- Keeping their area and surroundings clean from their personal belongings
- Keepings things like fruit basket, flowers away from the food/ eating area
- Allow clearance of meal tray
- Do not leave the food uncovered for long or while not around
- Try not to share food with other patients
- Be vigilant and know your allergies
INNOVATIONS AND SAFETY

Should it stop us from innovations?

NO.
SAFETY FLOWS FROM END TO END. IT IS A SHARED RESPONSIBILITY.
On a dark picture remove the STOP Hunger color logo and it can be used for the following expertise only:

- On-site services,
- Benefits and rewards services,
- Personal and home services,
- Corporate,
- Health care,
- Education,
- Defense,
- Remote sites,
- Justice services,
- Seniors,
- Sports and leisure,
- Child care,
- In-home senior care,
- Public benefits,
- Employee benefits,
- Incentives and recognition.

THANK YOU.