

Cross-Institution Infection Control (CIIC) Audit Tools

About Cross-Institution Infection Control Audits

The National Infection Prevention and Control (IPC) Guidelines for Acute Healthcare Facilities presented by the Ministry of Health (MOH), Singapore, has recommended for Healthcare institutions to ensure policies and processes for IPC are in place for safer healthcare system. Audit is an important aspect of infection control to improve safety.

In the pursuit of a safer system, following Hepatitis C outbreak at a SingHealth Institution in 2015, Singapore healthcare cluster, Singapore Health Services (SingHealth), through its Institute for Patient Safety and Quality (IPSQ), developed the Cross Institution Infection Control (CIIC) collaborative audit model in 2016. This is a model comprising of an independent multidisciplinary team of auditors; comprising of IPC Nurses, Allied Health Professionals and Administrators from SingHealth Institutions, to conduct Cross Institution Hand (CIHH) and Environment (CIEH) Hygiene audits. It brings together appointed auditors from within SingHealth institutions, guided by a structured approach with harmonized audit tools and standards, centralised training of auditors, and cross learning and sharing of best practices from the audits.

The audit model was scaled up to include Cross Institution Kitchen Hygiene (CIKH) in 2018 and Cross Institution Sterile Processing (CISP) and Cross Institution Endoscopy Reprocessing (CIER) in 2020. This paper elaborates the implementation, challenges & effectiveness of the CIIC collaborative audit model.

5 harmonized CIIC Audit Tools for:

1. Cross Institution Environmental Hygiene (CIEH)
2. Cross Institution Hand Hygiene (CIHH)
3. Cross Institution Kitchen Hygiene (CIKH)
4. Cross Institution Endoscopy Reprocessing (CIER)
5. Cross Institution Sterile Processing (CISP)

Cross Institution Environmental Hygiene (CIEH) Audit Tool

The focus of the CIEH Audit Tool is on dirt and blood in the environment, equipment and furniture. Processes audited include glucometer maintenance to eliminate blood stains, cleaning of equipment between use, storage of sterile items, accessibility of alcohol-based wipes and hand washing facilities, and knowledge of housekeeping staff on the use of different coloured cloths for cleaning.

Environment

Part I	ENVIRONMENTAL HYGIENE AUDIT CATEGORY / AUDIT ITEMS																	LOCATIONS																	Remarks
	AUDIT CATEGORY A (BLOOD) - ABSENCE OF BLOOD / POSSIBLE BLOOD STAINS OR OTHER BODY FLUIDS (20 Opportunities)																																		
	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt									
1	ENVIRONMENT (Examples)																																		
a	Walls																																		
b	Doors																																		
c	Curtains																																		
d	Floors																																		
e	Ceiling																																		
f	Windows																																		
g	Airconditioner / Fan																																		
h	Others Env 1:																																		
i	Others Env 2:																																		
j	Others Env 3:																																		
k	Sub-total (1) - Environment																																		

Equipment

Part I	ENVIRONMENTAL HYGIENE AUDIT CATEGORY / AUDIT ITEMS																	LOCATIONS																	Remarks
	AUDIT CATEGORY A (BLOOD) - ABSENCE OF BLOOD / POSSIBLE BLOOD STAINS OR OTHER BODY FLUIDS (20 Opportunities)																																		
	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt	Blood	Dirt									
2	EQUIPMENT (Examples)																																		
a	Hypocount machine / Glucometer																																		
b	Infusion pumps																																		
c	Blood pressure machine																																		
d	Suction machines																																		
e	Computer on Wheels (COW) / Medical COW																																		
f	Computer																																		
g	Others Eqp 1:																																		
h	Others Eqp 2:																																		
i	Others Eqp 3:																																		
j	Others Eqp 4:																																		
k	Others Eqp 5:																																		
l	Others Eqp 6:																																		
m	Others Eqp 7:																																		
n	Sub-Total (2) - Equipment																																		

Record of Findings

A. KEY FINDINGS & OBSERVATIONS									
SERIAL NO.	PART I (To be completed by CIC Team Leader / Auditor & forwarded to Cluster Lead within 3 working days)						PART II (To be completed by Audited Institution Nursing / ES / FMS under supervision of CR / DR / Equivalent HOD within 14 working days)		
	AUDITED LOCATIONS (State the specific location (e.g. room #, bed #, function etc of the area where the finding / observation was made))	AREA (Environment, Equipment and Furniture)	ITEM TYPES	IMAGES (Highlight area of interest on the image with a red circle or arrow)	FINDING / OBSERVATION (Include brief note on why observation constitutes a breach or poses a risk to ICP, where appropriate)	CATEGORY (Dust, Blood Stain, Stain/Dirt, Others)	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED (Insert photo on action(s) taken & / or action plan(s) to address findings / observations)	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED (Comments on action(s) taken & / or action plan(s) to address findings / observations)	REMARKS (To provide comments on why the observation should be attended to and any suggestions provided to staff; or feedback by staff of audited unit on the constraints faced; or why the standard practice is not applicable at the specific audited site)
				<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		
				<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		
				<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		
				<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		
				<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		

Cross Institution Hand Hygiene (CIHH) Audit Tool

The CIHH Audit Tool is aligned with the World Health Organization (WHO) Five Moments for Hand Hygiene.

CROSS INSTITUTION HAND HYGIENE (CIHH) AUDIT TOOL

As at 01/04/2019

Note: Use one Audit Tool for one type of Audit Site (e.g. ICU, Medical Wards, Surgical Wards)

(Version 6.0)

Name of Institution : _____

Name of auditor (Facility/external auditors) : _____ Date : _____

Type of Audit Site : **ICU / Medical / Surgical Wards / OT / SOC / Ambulatory / Others (Please specify e.g.**

Radiology): _____

(Please Circle only

ONE)

*For Hospitals (SGH, KKH, CGH, SKH, NHCS) : Must cover ICU, Medical & Surgical Wards (target 100 opportunities) plus OT / Ambulatory Centres (e. EMD, DDR) etc. (target 40 opportunities)

*For BVH / SKCH / SingHealth Polyclinics / Specialist Centres : All clinical areas (target 100 opportunities)

Audit area/ward: _____

Healthcare Workers (HCWs) Type:

Doctors

Nurses

Ancillary Group (including Healthcare Assistant [HCA], Healthcare Attendant [HA], Food Services Assistant [FSA], Patient Care Assistant [PCA], Patient Service Associate/Assistant [PSA], Dental Surgery Assistant [DSA], Basic Care Assistant [BCA], Housekeeping, Porters)

Allied Health Group (including *AHP* -- Healthcare practitioners with an educational level of Diploma or above in that profession, who are not Doctors or Nurses, and are involved directly or indirectly in the delivery of health or related services involving research, diagnosis and / or assessment, treatment, planning and follow up care). And (including *AHS* -- Staff that are trained to perform procedures to support the AHPs (SingHealth) in their service delivery).

Please refer to the full list on page 4

WHO 5 Moments

Inpatient (5 Moments of Hand Hygiene)

- 1 = Before touching a patient
- 2 = Before clean/aseptic procedure
- 3 = After blood/body fluid exposure
- 4 = After touching a patient
- 5 = After touching patient surrounding

Ambulatory [Outpatient] (4 Moments of Hand Hygiene)

- 1 = Before touching a patient
- 2 = Before clean/aseptic procedure
- 3 = After blood/body fluid exposure
- 4 = After touching a patient

Sample:

S/N	HCWs	5 Moments of Hand Hygiene (Please circle <u>1</u> moment per row)					Yes		No (✓)	Remarks (Non-compliance activity)
		1	2	3	4	5	Hand Wash (✓)	Hand rub (✓)		
1	Doctors	1	2	3	4	5		✓		
2		1	2	3	4	5			✓	Before blood taking

Cross Institution Kitchen Hygiene (CIKH) Audit Tool

The CIKH Audit Tool was adopted from the Singapore Ministry of Health (MOH) Infection Prevention and Control (IPC) Audit Tool. The focus is to maintain kitchen hygiene through checks on environment cleanliness, food storage, staff hygiene and cleaning of equipment processes.

Covers General Environment, Storage of Food, Refrigerators, Cold Room (Chillers and Freezers), Handwashing Facility, Personnel & Cleaning.

S/N	ELEMENTS	M. th	FINDING / OBSERVATION <i>(Include brief note on why observation constitutes a breach or poses a risk to ICP, where appropriate)</i>	CC	KEN / (s) to	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED <i>(Comments on action(s) taken & / or action plan(s) to address findings / observations)</i>
General Environment						
1	Physical condition of kitchen and general cleanliness (floors, walls and ceiling are clean; drains are free from foul odours and free from clog)	1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert	1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert		1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert	
2	Food Preparation Counters – are clean and free from spills.	1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert	1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert		1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert	
		1. Right click on this box 2. Click on "Change Picture..."	1. Right click on this box 2. Click on "Change Picture..."		1. Right click on this box 2. Click on "Change Picture..."	

Storage of Food					
6	Clear labelling – Date of preparation / Manufacture date / Date of expiry on all food containers.	<p>3. Select the photo and click insert</p>	<p>3. Select the photo and click insert</p>		<p>3. Select the photo and click insert</p>
		<p>1. Right click on this box 2. Click on "Change Picture..."</p>	<p>1. Right click on this box 2. Click on "Change Picture..."</p>		
7	Food is not placed near sources of contamination.	<p>3. Select the photo and click insert</p>	<p>3. Select the photo and click insert</p>		<p>3. Select the photo and click insert</p>
		<p>1. Right click on this box 2. Click on "Change Picture..."</p>	<p>1. Right click on this box 2. Click on "Change Picture..."</p>		
					<p>1. Right click on this box 2. Click on "Change Picture..."</p>

Refrigerators					
8	Temperature maintained 0-4°C and monitored.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
9	Cooked food is stored above uncooked food.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
10	Food are properly covered to prevent contamination.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
11	Refrigerator is clean and free from spills & debris	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>

Cold Room (Chillers and Freezers)					
12	Walls, floors and shelves are free of spills and debris.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
13	Temperature of frozen food is monitored and maintained at -18°C and below.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
14	Temperature of chilled food is monitored and maintained 4°C and below.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
15	Food are properly covered to prevent contamination.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	

Handwashing Facility						
16	Liquid soap and paper towels for handwashing / drying are available.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
Personnel						
17	Staff must have tidy hair and long hair must be tied up. Hair covered with caps or hair nets when necessary.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
18	Staff wash hands before handling food, after visiting the toilets.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
19	Staff wear hand-gloves when preparing/handling cooked food.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
20	Staff fingernails are clean & short.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	
21	Staff put on clean uniform/PPF when preparing and serving food.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	

Cleaning					
22	Cleaning equipment must be stored separately from food / food contact surfaces to prevent risks of cross contamination.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
23	Cleaning Chemicals are stored in designated room or area except when necessary for cleaning and sanitation.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
24	The temperature of dishwasher is regulated at 50-85 degree Celsius and records are maintained.	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>
25	Valid documentation of regular pest control are available	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>	<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>		<p>1. Right click on this box</p> <p>2. Click on "Change Picture..."</p> <p>3. Select the photo and click insert</p>

Cross Institution Endoscopy Reprocessing (CIER) Audit Tool

The CIER Audit Tool was adopted from the MOH IPC Audit Tool, to ensure compliance and hygiene by checking on Endoscopy reprocessing and storage of sterile supplies.

Over 60 Elements.

Ceiling/ceiling boards are free from water stains that predispose to mould development

Air vents are free from dust/debris.

Walls and curtains are free from stains such as blood/possible blood stains.

Patient's environment (e.g. trolley bed, mattress and pillow) is free from stains such as blood/possible blood stains.

Injection and procedures trolleys are free from stains such as blood/possible blood stains.

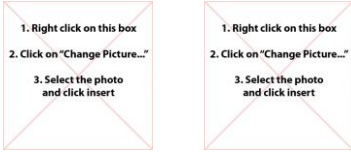

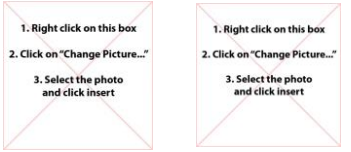

There is a centralised area for reprocessing of endoscopes. The area has the following features:

(i) designated and dedicated decontamination area;

(ii) separate dirty, clean and storage areas; and

(iii) one-way flow for instrument reprocessing.

etc. Please connect for full list....

S/N	ELEMENTS	COMPLIANCE		IMAGES <i>(Highlight area of interest on the image with a red circle or arrow)</i>	FINDING / OBSERVATION <i>(Include brief note on why observation constitutes a breach or poses a risk to ICP, where appropriate)</i>	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED <i>(Insert photo on action(s) taken & / or action plan(s) to address findings / observations)</i>	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED <i>(Comments on action(s) taken & / or action plan(s) to address findings / observations)</i>
		MET/NOT MET/NA					
1	Ceiling/ceiling boards are free from water stains that predispose to mould development						
2	Air vents are free from dust/debris.						

Cross Institution Sterile Processing (CISP) Audit Tool

The CISP Audit Tool was adopted from the Asia Pacific Society of Infection Control (APUSIC) checklist, to ensure compliance and hygiene by checking on sterilisation processes and storage of sterile supplies.

Over 100 Elements.

Reusable items separated from waste at point of use

Contaminated disposable items are discarded appropriately (including sharps.)

Written policies and procedures in place for all cleaning and decontamination processes.

Instrumentation is disassembled (according to manufacturer's instructions) to expose all surfaces for cleaning

Rigid container systems disassembled according to manufacturer instructions (filters, valves and interior baskets.)

Ensure instruments are cleaned and dried before packaging.



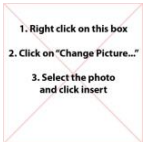

Inspect instruments for flaws or damage. Check for rust, pitting, corrosion, burrs, nicks, cracks, chipping of plated surfaces. Lighted magnifying glass available for instrument inspection.

Cleaning verification by users should include visual inspection combined with other verification methods (ATP) that allow assessment of instrument surfaces and channel

Steriliser Manufacturers' written instructions for cycle parameters are available.

Rigid Container Manufacturers' instructions for cycle parameters are followed.

etc. Please connect for full list....

S/N	ITEMS REVIEWED	COMPLIANCE		FINDING / OBSERVATION <i>(Include brief note on why observation constitutes a breach or poses a risk to ICP, where appropriate)</i>	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED <i>(Insert photo on action(s) taken & / or action plan(s) to address findings / observations)</i>	CORRECTIVE / REMEDIAL ACTION (S) TAKEN / PLANNED <i>(Comments on action(s) taken & / or action plan(s) to address findings / observations)</i>
		YES / NO / NA	IMAGES <i>(Highlight area of interest on the image with a red circle or arrow)</i>			
1	Reusable Items separated from waste at point of use		 <ol style="list-style-type: none"> 1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert 	 <ol style="list-style-type: none"> 1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert 		
2	Contaminated disposable items are discarded appropriately (including sharps.)		 <ol style="list-style-type: none"> 1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert 	 <ol style="list-style-type: none"> 1. Right click on this box 2. Click on "Change Picture..." 3. Select the photo and click insert 		

Thank You



**Institute for
Patient Safety & Quality**

Academic Medicine
improving patients' lives

TARGET
ZERO HARM

