

STUDY GUIDE

Patient safety module

1200601 (SAF-612)



Course Coordinators

Male & Female section: **Dr Muhammad Omer Afzal Bhatti** (Muhammad.Afzal@nbu.edu.sa)

Course Identification

1. Credit hours	1
2. Level/year at which this course is offered	6 th Year / Semester XI & XII
3. Pre-requisites for this course	Surgery- I Internal Medicine-I

Course Contributors

No	Specialty	Name of the contributor	Email ID
1.	Surgery	Dr Riyadh Dr Azhar Dr Haider Dr Ayub	rylaham@hotmail.com drmalikazhar@yahoo.com haidermisbah2002@yahoo.com dr.ayubjat@yahoo.com
2.	Medicine	Dr Ahmed Hammad	ahmedhamad105@yahoo.com
3.	Pharmacology	Dr. Muhammad Jan Dr Hassan El Tom Dr.Rahma Hamayun	drmuhammadjansmc@gmail.com hassan27rus@gmail.com r_hamayun@hotmail.com
4.	Pathology	Dr.Rashad Qasem	ra_qa76@yahoo.com
5.	Obs & Gynae	Dr Sameena	Saminamemon64@gmail.com
6.	Psychiatry	Dr Sadaf	sadafajjaz@gmail.com
7.	Community Medicine	Dr. Hanaa Helal	hanaa.helal@gmail.com
8.	Radiology	Dr. Muhammad Omer Afzal Bhatti	omer666afzal@hotmail.com

Actual Learning Hours

No	Activity	Learning Hours
Contact Hours		
1	Lecture	12
2	Workshops	4
3	Tutorial	6
4	Others	
	Total	22
*Other Learning Hours		
1	Study	12
2	Assignments	
3	Library	4
4	Projects/Research Essays/Theses	4
5	Others(specify)	
	Total	20

A.Course Objectives

B.Course Learning Outcomes

A. Course Objectives and Learning Outcomes

1. Course Description

Patient Safety Module is aimed to introduce to the students the concepts, philosophy and practicality of patients' safety. This is a multidisciplinary course building a collaborative relationship between the students, patients, caregivers, and other health care providers. The course is an introduction to the new concept of 'Patient Safety' to our future physicians. It depends on inter-professional and multidisciplinary evidence based approach to patient safety. The course will include interactive lectures, hands-on practical sessions and close patient/family interaction. Student will be exposed to national laws and rules and medical law protection which will add to the professional aspect of the curriculum.

Students will act as their patients' own advocate during the Patient Safety Advocacy Project execution.

2. Course Main Objective

At the end of this course, student should be able to:

1. Demonstrate an open-minded, understanding of human factors and medical errors.
2. Develop self-awareness of human factors of medical incidents/errors.
3. Recognize the basic legally sensitive issues in daily clinical practice.
4. Understand how psychological stress, the workplace and hostile working environments can result in physical and psychological dysfunction leading to patient harm.
5. Develop a positive attitude towards patients and their families through engaging with patients and caregivers on a personal level through different activities of the module.
6. Demonstrate patient safety advocacy that will be reflected by their Patient Safety Project.
7. Apply the skills of preventive measures of infection control, disaster planning, and medication safety.

B. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Recognize the major areas of concern for patient safety and the relevant preventive and control measures and identify the role of the human factors and workplace stress in occurrence of adverse events. .	K2
2	Skills :	
2.1	Perform proper hand washing, use PPE and follow the proper needle stick injuries policy and identify all the components of safe medication prescription.	S2
2.2	Demonstrate the ability to report medical errors	S5
3	Competence:	
3.1	Willingness to work in a team with other health professionals	C1
3.2	Interpret the clinical and laboratory data for the clinical problems related to the patient safety	C2

CLOs		Aligned PLOs
3.2	Responsibility to remain a life-long learner and maintain the highest ethical and professional standards	C3

Course Content

A. LECTURES

No	List of Topics	Contact Hours
1	Radiation Protection	1
2	Modes of spread of infection	1
3	Infection control measures and recommendations for inevitable contamination	1
4	Hospital safety and disaster management –Internal Emergency	1
5	Hospital safety and disaster management –External Emergency	1
6	Medication Safety - Safe Prescription	1
7	Medication Safety- Safe dispensing and administration of medication	1
8	Food and Nutritional Safety	1
9	Human factors affecting safety in patients' handling	1
10	Effects of stress and fatigue of health care providers on patient safety	1
11	Documentation of adverse events	1
12	Malpractice protection	1
Total		12

B. TUTORIALS

No	List of Topics	Contact Hours
1	Sterilization	1

2	Sharp safety	1
3	Medication safety	1
4	Transfusion safety	1
5	Effect of Stress and Fatigue on Patient Care	1
6	Infectious Cycle	1
Total		6

C. WORKSHOPS

No	List of Topics	Contact Hours
1	Sterilization Workshop	1
2	Sharp Safety	1
3	Medication Safety	1
4	Transfusion Safety	1
Total		4

Teaching strategies and Assessment Methods for Students

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Recognize the major areas of concern for patient safety and the relevant preventive and control measures and identify the role of the human factors and workplace stress in occurrence of adverse events. .	K2
2	Skills :	
2.1	Perform proper hand washing, use PPE and follow the proper needle stick injuries policy and identify all the components of safe medication prescription.	S2

CLOs		Aligned PLOs
2.2	Demonstrate the ability to report medical errors	S5
3	Competence:	
3.1	Willingness to work in a team with other health professionals	C1
3.2	Interpret the clinical and laboratory data for the clinical problems related to the patient safety	C2
3.2	Responsibility to remain a life-long learner and maintain the highest ethical and professional standards	C3

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge		
1.1	Recognize the major areas of concern for patient safety and the relevant preventive and control measures and identify the role of the human factors and workplace stress in occurrence of adverse events. .	Direct instruction (Lectures) Interactive (Tutorials, Workshops)	Written Exam, Workshops (Competent Assessment and log/checklists) and Patient Safety Advocacy Project
1.2			
2.0	Skills		
2.1	Perform proper hand washing, use PPE and follow the proper needle stick injuries policy and identify all the components of safe medication prescription.	Interactive (Tutorials, Workshops)	Workshops (Competent Assessment and log/checklists) and Patient Safety Advocacy Project
2.2	Demonstrate the ability to report medical errors	Interactive (Tutorials, Workshops)	Workshops (Competent Assessment and log/checklists) and Patient

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
			Safety Advocacy Project
3.0	Competence		
3.1	Willingness to work in a team with other health professionals	Interactive (Tutorials, Workshops)SDL (self directed learning in the project)	Written Exam, Workshops (Competent Assessment and log/checklists) and Patient Safety Advocacy Project
3.2	Interpret the clinical and laboratory data for the clinical problems related to the patient safety		
3.2	Responsibility to remain a life-long learner and maintain the highest ethical and professional standards		

Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Patient Safety Advocacy Project	Last Week	20%
2	Workshops	Last Week	20%
3	Written Exam	Last Week	60%

Course Teaching and Assessment Blueprint

Topics	Teaching strategies	Assessment methods	Knowledge			Skill			Competency			% of total contact hours	% of total summative marks
			K1	K2	K3	S1	S2	S5	C1	C2	C3		
Food and	Lecture	Written		√					√	√	√	5.2	4.23

Topics	Teaching strategies	Assessment methods	Knowledge			Skill			Competency			% of total contact hours	% of total summative marks
			K 1	K 2	K 3	S 1	S 2	S 5	C 1	C 2	C 3		
Nutritional Safety		exams and Patient Safety Advocacy Project											
Modes of spread of infection	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Infection control measures and recommendations for inevitable contamination	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Hospital safety and disaster management – Internal Emergency	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Hospital safety and disaster management – External Emergency	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Medication Safety - Safe Prescription	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23

Topics	Teaching strategies	Assessment methods	Knowledge			Skill			Competency			% of total contact hours	% of total summative marks
			K 1	K 2	K 3	S 1	S 2	S 5	C 1	C 2	C 3		
		Project											
Medication Safety- Safe dispensing and administration of medication	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Radiation Protection	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Human factors affecting safety in patients' handling	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Effects of stress and fatigue of health care providers on patient safety	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Documentation of adverse events	Lecture	Written exams and Patient Safety Advocacy Project		√					√	√	√	5.2	4.23
Malpractice	Lecture	Written exams and		√					√	√	√	5.2	4.23

Topics	Teaching strategies	Assessment methods	Knowledge			Skill			Competency			% of total contact hours	% of total summative marks
			K1	K2	K3	S1	S2	S5	C1	C2	C3		
protection		Patient Safety Advocacy Project											
Sterilization	Tutorial	Written exams and Patient Safety Advocacy Project		√					√	√	√	2.6	4.23
Sharp safety	Tutorial	Written exams and Patient Safety Advocacy Project		√					√	√	√	2.6	4.23
Medication safety	Tutorial	Written exams and Patient Safety Advocacy Project		√					√	√	√	2.6	4.23
Transfusion safety	Tutorial	Written exams and Patient Safety Advocacy Project		√					√	√	√	2.6	4.23
Effect of Stress and Fatigue on Patient Care	Tutorial	Written exams and Patient Safety Advocacy		√					√	√	√	2.6	4.23

Topics	Teaching strategies	Assessment methods	Knowledge			Skill			Competency			% of total contact hours	% of total summative marks
			K1	K2	K3	S1	S2	S5	C1	C2	C3		
		Project											
Infectious Cycle	Tutorial	Written exams and Patient Safety Advocacy Project		√					√	√	√	2.6	4.23
Sterilization Workshop	Workshop	Workshop and Patient Safety Advocacy Project					√	√				5.2	5.9
Sharp Safety	Workshop	Workshop and Patient Safety Advocacy Project					√	√				5.2	5.9
Medication Safety	Workshop	Workshop and Patient Safety Advocacy Project					√	√				5.2	5.9
Transfusion Safety	Workshop	Workshop and Patient Safety Advocacy Project					√	√				5.2	5.9

Learning Resources

1. Learning Resources

Required Textbooks	Understanding Patient Safety, 3 rd Edition by Robert M. Wachter, McGraw Hill (November 23, 2017)
Essential References Materials	Medication Errors; 2 nd Edition; Michael R. Cohen; American Pharmacist Association; 2007 Food Safety Handbook; 1 st Edition; Ronald H. Schmidt; John Wiley & Sons; 2003 Medication Safety in Pregnancy and Breast Feeding: The Evidence-Based, A to Z Clinician's Pocket Guide; Gideon Koren; 2007

Related check lists

Project checklist Rubric to Assess a Digital Poster

CATEGORY	4 Excellent	3 Good	2 Fair	1 Needs to improve
Title	It is very creative and represents very well the topic of the poster.	It is creative and represents well the topic of the poster.	It is creative enough and represents enough the topic of the poster	It is not creative. It has nothing to do with the topic of the poster
Presentation of the information	The information is very well organized with a detailed order and it is easy to be checked	The information is well organized and that makes checking it easy	The information is organized but it is not easy to be checked	The information is not organized and it is not easy to be checked.
Pictures	They are very appropriate for the topic and they make a good visual summary of the topic. There are 10 pictures.	They are quite appropriate for the topic and they make a summary of the topic. There are between 6-8 pictures.	They are appropriate enough but some pictures are not related to the topic. There are between 4-6 pictures.	They are not appropriate and they are not related to the topic. There are less than 4 pictures
Links	They are easy to be consulted and they provide extra information apart from the essential one about the topic.	They are easy to be consulted and they provide all the necessary information.	They provide the basic information and they are easy to be consulted.	They are not adequate for the proposed topic
Teamwork	They work a lot and with a very good organization	They work but with some mistakes as regards organization.	They work but Without organization.	They hardly work. Without interest.

Workshop checklist

Contents:

Workshop 1: Sterilization

**CLINICAL SKILL CHECK LIST 1
HAND HYGIENE**

**CLINICAL SKILL CHECK LIST 2
SURGICAL HAND SCRUB**

**CLINICAL SKILL CHECK LIST 3
APPLYING A STERILE GOWN AND DONNING GLOVES**

Workshops No. 2

**CLINICAL SKILL CHECK LIST 4
NEEDLE & SHARP SAFETY**

Workshop No. 3

**CLINICAL SKILL CHECK LIST 5
MEDICATION SAFETY**

Workshop No. 4

**CLINICAL SKILL CHECK LIST 6
BLOOD AND BLOOD COMPONENTS TRANSFUSION**

Workshop No. 1
CLINICAL SKILL CHECK LIST 1
HAND HYGIENE

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Hand washing technique will be according to PAH Policies & Procedures.

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture /video.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
Hand Washing:			
1	Inspect surfaces of hands for breaks or cuts on skin, and cover any lesions before providing patient care.		
2	Pull long uniform sleeves above the wrists. Remove the wristwatch and rings during washing.		
3	Stand in front of sink, keeping hands and uniform away from sink surface and avoid splashing water onto uniform.		
4	Turn on water or push knee pedals laterally or press foot pedals to regulate water flow and temperature.		
5	Wet hands and wrists thoroughly under running water. Keep hands and forearms lower than elbows during washing.		
6	a) Apply sufficient amount of hand hygiene product to the cupped hands, covering all surfaces. b) Rub right palm over left dorsum with interlaced fingers and vice versa. c) Palm to palm with fingers interlaced d) Back of fingers to opposing palm with fingers interlocked and vice versa. e) Rotational rubbing of thumbs clasped in the right palm and vice versa.		

	f) Rotational rubbing backwards and forwards with finger tips of right palm in palm of left hand and vice versa. g) Don't forget to rub the wrist. (Rub each area at least 5 times and may extend period of washing, if hands are visibly/heavily soiled.)		
7	Rinse hands and wrists thoroughly, keeping hands down and elbows up.		
8	Turn off water with foot or knee pedals; to turn off hand faucet, use clean, dry paper towel or elbow. Avoid touching handles with already washed hands		
9	Dry hands thoroughly from finger tips to wrists and forearms with paper towel, or warm air dryer.		
10	Discard paper towel accordingly.		

NB: Avoid using hot water, because repeated exposure to hot water may increase the risk of dermatitis.

COMMENTS:.....

ASSESSOR's NAME: _____ SIGNATURE:
 STUDENT's NAME: _____ SIGNATURE: _____

Workshop No. 1
CLINICAL SKILL CHECK LIST 2
SURGICAL HAND SCRUB

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Surgical Hand Scrub techniques will be according to PAH policies and procedures.

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture / video.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
Preparation:			
1	Remove all jewelry from hands and forearms.		
2	Fix eyeglass, mask and head cap properly .		

3	Expose the arms 2” (inches) above the elbows.		
4	Remove brush from wrapper.		
5	Adjust water flow and temperature.		
Pre-Wash:			
6	Hold hands and arms away from the body, with hands above the level of elbows till the end of the procedure.		
7	Wet hands and forearms from fingertips to elbows.		
8	Clean nails and subungual areas with disposable nail cleaner, under running water.		
9	Rinse hands and arms thoroughly.		
Brush Scrub:-			
10	Scrub finger nails of hand no. 1 using the brush face for 15-30 seconds.		
11	Repeat above step for hand no. 2.		
12	Scrub the palm and fingers of hand no. 1 from front and back using the sponge face for 15-30 seconds..		
13	Scrub arm no. 1 with circular motion from wrist to elbow for 15-30 seconds.		
14	Transfer from the distal level of the arm to the proximal level by spiral motion.		
15	Repeat steps 12, 13 and 14 for hand No. 2.		
16	Dispose brush appropriately		
17	Rinse hand no. 1.		
18	Rinse hand no. 2.		
Disinfectant Scrub:-			
19	Use the disinfectant soap to scrub both hands from fingertip to elbow following same technique of brush scrubbing and rinsing for 30-60 seconds each.		
20	Use the disinfectant soap to scrub both hands from fingertip to wrist for 15-30 seconds each and rinse separately.		
21	Close water tap.		

Drying Hands and Arms:			
22	Use the edge of one side of the towel to dry hand no. 1.		
23	Start by drying fingers one by one, then palms, then back of the hand proximally to elbow with rotating motion.		
24	Don't touch the previously dried areas.		
25	Don't allow the towel to touch the scrub uniform.		
26	Hold the other edge of the towel by hand no. 1.		
27	Repeat steps 30, 31 and 32 for hand no. 2.		
28	Dispose used towel appropriately.		

COMMENTS:

ASSESSOR: NAME: _____ SIGNATURE: _____

STUDENT: NAME: _____ SIGNATURE: _____

Workshop No. 1
 CLINICAL SKILL CHECK LIST 3
 APPLYING A STERILE GOWN AND DONNING GLOVES

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Sterile gown and donning gloves techniques will be according to PAH policies and procedures.

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
Apply sterile gown:			
1	Pick up gown below neck edge.		
2	Lift the gown directly upward and step away.		
3	Gently shake out the folds.		
4	Slip arms into sleeves without touching sterile outside of the gown with hands.		



5	Ask for assistant to pull the gown on, keeping both hands inside of the sleeve.		
6	Ask for assistant to tie the tapes at the neck level and the waist level from inside.		
7	When both hands are gloved, untie the waist tapes on the front of the gown.		
8	Hold both tapes above the waist level.		
9	Wrap the right hand tape with sterile paper (gloves paper) and give it to the unscrubbed person.		
10	Turn anticlockwise to cover the back.		
11	Pull the tape without the paper from the unscrubbed person.		
12	Keep scrubbed hands above the waist level.		
Closed gloving procedure:			
13	Choose the suitable size of gloves.		
14	Keep both hands inside the sleeve.		
15	Unfold the sterile gloves cover.		
16	Place Right gloves on top of the right hands with fingers pointing toward the body and thumbs together.		
17	Grasp the top edge of the glove cuff by the left and right hands.		
18	Flip and pull right gloves to insert right hand inside it.		
19	Grasp the right glove and wrist cuff on the gown and gently pull upward.		
20	Repeat steps 16, 17 and 18 for left hand.		

COMMENTS:

ASSESSOR:

NAME: _____ SIGNATURE: _____

STUDENT:

NAME: _____ SIGNATURE: _____



Workshops No. 2
 CLINICAL SKILL CHECK LIST 4
 NEEDLE & SHARP SAFETY

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Prevention of Needle & sharp Stick injury must be according to PAH protocols.

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
1	Knows where and how to dispose all sharps.		
Actions to prevent Needle & sharp injuries:			
2	Never to re-cap needles.		
3	Use needle holder to always assemble surgical blades into handles.		
4	Dispose of all needles, blades into magnetic sharp containers (where applicable).		
5	All suture needles when not in use should be securely stored as per standard protocol.		
6	During surgical procedures, handling sharps especially needles must be done per facility standard.		
7	All surgical blades should be handed and received during surgeries through kidney dish.		
On Exposure:			
8	Encourage Bleeding		
9	Wash with water and cover appropriately.		
10	Report appropriately.		
11	Initiate OVR.		
12	Staff Health visit.		

COMMENTS:

ASSESSOR:

NAME: _____ SIGNATURE: _____

STUDENT:

NAME: _____ SIGNATURE: _____

Workshop No. 3
CLINICAL SKILL CHECK LIST 5
MEDICATION SAFETY

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Medication ordering and dispensing will be according to PAH Policies & Procedures

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture /video.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
1	Check the correct patient's chart & for known allergies.		
2	2.Has medication reconciliation performed		
3	3.Understand the actions, special considerations, safe dose ranges, purpose of administration, and adverse effects of the medications to be ordered.		
4	Consider the appropriateness of the medication for the patient's condition.		
5	Order does include: a. right date b. generic name of drug c. right dose d. right route & method of administration e. right frequency f. right timing and the right diluents g. validity of prescription h. signature and pager number/stamp.		

COMMENTS:

ASSESSOR NAME: _____ SIGNATURE: _____

STUDENT NAME: _____ SIGNATURE: _____

Workshop No. 4
CLINICAL SKILL CHECK LIST 6
BLOOD AND BLOOD COMPONENTS TRANSFUSION

Name _____ Date _____

Computer No.: _____ Group: _____

COMPETENCY STATEMENT:

- Blood and blood components will be according to PAH policies and procedures.

LEARNING RESOURCES MANDATORY:

- Attends workshop lecture / video.

EVALUATION STRATEGIES:

- Achieves performance criteria

SN	PROCEDURE	ACHIEVED	Needs Further Practice
1	Awareness of how Blood transfusion/Products order are performed		
2	Verifies that informed consent has been completed and signed.		
3	Demonstrates compliance with Standard Precautions and prevention of cross infection throughout all aspects of this procedure.		
4	Understands the concept of cross matching of blood prior to ordering		
Collection of Blood from Blood Bank:			
5	Takes "Notification Authorization Form" to the Blood Bank and checks details match the Blood Bank's "Cross Match Tag" and the sticker attached to the blood unit		
6	Checks expiration date on the blood bag and observes for any abnormalities.		
7	Without delay transports blood/blood products from the Blood Bank to the patient's bedside using designated blood transport container.		
Correct patient to blood identification check at bedside with a nurse or a physician:			
8	Compares the patient's name and medical record number on the patient's ID wristband – with that on the Blood Bank's "Cross Match Tag Form"		
9	Checks the blood bag identification number, the ABO and Rh compatibility on the unit itself and compares/matches with the information on the "Cross Match Tag Form"		
10	Confirm the identification of signs and symptoms of possible reaction		
11	"Cross Match Tag Form" is signed by both staff that checked the blood.		
Signs of Transfusion Reaction:			
12	Stops infusion immediately and commences/ order normal saline to keep vein open.		

13	Monitors vital signs as appropriate until patient is stabilized.		
14	Complete "Report on Suspected Transfusion Reaction Form"		
15	Completes Occurrence Variance Report		

COMMENTS:

ASSESSOR:NAME: _____ SIGNATURE: _____
STUDENT:NAME: _____ SIGNATURE: _____

Course quality evaluation

After the end of the course, please give your **FEEDBACK** through the following QR code:

