



## **CURRICULUM**

# **ODISSeA - Organ Donation Innovative Strategies for South-East Asia**



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## 1. INTRODUCTION

ODISSeA - Organ Donation Innovative Strategies for Southeast Asia is an Erasmus+ project funded by the European Commission under the program “Erasmus+ Capacity Building in Higher Education”. The main objective is to design and implement an academic postgraduate program on organ donation in 8 universities from Malaysia, Myanmar, Philippines and Thailand, in accordance with the European Space for Higher Education guidelines. The project is the result of the cooperation of fourteen institutions from Southeast Asia (SEA) and the European Union. From the European side, the University of Barcelona and DTI, Barcelona, Spain, are the leaders and organizers of the project, together with the University of Bologna, Italy, and University of Zagreb Medical University, Croatia.

The origin of the project comes from the need for a specialized training program that builds adequate knowledge, skills and attitude in organ donation to improve the number of well-trained specialists, coordinate the organ donation process, and delivery of care to patients with end-organ failure, identified among the SEA partner countries: Malaysia, Myanmar, Philippines and Thailand.

The postgraduate academic program to be developed and implemented will provide a common framework where Universities from 3 European countries and 8 Universities from Malaysia, Myanmar, Philippines and Thailand collaborate to develop a student-centred lifelong learning strategy corresponding to highly specialized knowledge in organ donation, with specific problem-solving skills and the responsibility of managing and transforming organ donation through strategic approaches. Upon successful completion, an accomplishment diploma validated and accredited by SEA universities will be issued (750 hours or 30 ECTS).

The project follows the steps below:

- 1- Create the required framework for an innovative and sustainable specialized training programme in the SEA regions that results in improved professional competences, better clinical performance in organ donation, as well as increased awareness within and outside the hospitals in SEA regions.
- 2- Analyse the local academic requirements for accreditation. Hospital and patient data will be collected from the hospital centres related to SEA universities to compare



figures before and after the implementation of the programme and measure its impact on the clinical outcome. Specific educational needs on living and deceased organ donation together with evolution of perception, attitude and knowledge in organ donation will be also measured.

3- Design and Develop the Postgraduate Program on Organ Donation in 8 SEA Universities. 40 future students (5 per SEA university) along with 40 future local trainers (5 per SEA university) will be identified and involved along with EU experts in the design and development of the teaching plan, scientific contents, educational resources and materials. They will work together according to the learning objectives, educational methodology, contents outlined and commonly agreed. Quality indicators will be considered carefully for each component, from course introduction to modules of instruction, interactivity, resources available, activities and assessment methods.

In parallel the local future trainers will be trained through a Training for Trainers program, to ensure the sustainability of the program.

4- Implement the Postgraduate Program that will enable healthcare students to be trained as specialists in organ donation. A total of 280 students (35 per SEA University) will be enrolled considering: gender equity, equitable representation of ethnic groups, minorities and vulnerable groups, healthcare staff from ICU, emergency and stroke units, good level of English, among others. They will be requested to complete successfully the training program, according to the academic calendar, under the guidance of the local trainers and with the support of the EU experts.

5- Evaluate learners' acquired knowledge through formative and summative evaluation throughout the entire program, the quality of program as well as its impact. We expect that at least 224 students (80% of total) will complete successfully the program and will be accredited by their universities.

Beneficiaries will acquire the knowledge, skills and attitude required for the development of organ donation activities in their hospitals. They will have the competences and motivation to appropriately transfer the knowledge within the HEIs and to the society with the ultimately goal of improving donation rates and increase life-saving transplants in their communities.

## 2. OBJECTIVES

**Main objective:** to develop and implement a postgraduate curriculum program on organ donation in 8 Universities from Malaysia, Myanmar, Philippines and Thailand to train health care professionals in clinical approach, management and dissemination strategies in the organ donation field in order to empower their professional competences and consequently enhance the donation activity in the country.

**Specific objectives** set in compliance with the needs identified and curriculum proposed:

### Organ donation

#### **Legal and ethical framework in organ donation:**

- ✓ To present the state of art, legislative and regulatory aspects regarding organ donation in South-East Asia.

#### **Deceased organ donation after brain death (DBD):**

##### 1. Donor detection and evaluation criteria:

- ✓ To enable participants to learn the essential steps and most effective ways to identify possible and potential organ donors and to enhance their referral to the Donor Transplant Coordinator.
- ✓ To provide participants with the knowledge required to conduct a global donor evaluation to ensure that the donor clinical situation will not affect the organs functionality and that there is no risk of disease transmission.
- ✓ To provide a complete picture of absolute and relative exclusion criteria for organ donation (general and organ specific).
- ✓ To widen acquaintance on how to measure and optimize donation potential and effectiveness.

##### 2. Brain death diagnosis:

- ✓ To introduce the concepts and definitions of Brain Death (BD).
- ✓ To provide knowledge on clinical and instrumental diagnosis criteria of BD.



- ✓ To understand conflictive situations.
- 3. Donor management:
  - ✓ To understand how to manage BD donors from hemodynamic, electrolyte, endocrine and ventilation point of view.
  - ✓ To ensure correct maintenance of organ donors.
- 4. Family approach for organ donation
  - ✓ To provide participants with the methodology and communication skills required to break bad news.
  - ✓ To understand how to make the request for organ donation and deal with refusals.
  - ✓ To learn how to assess biological risk for transplantation during the interview with relatives.
- 5. Organ recovery, preservation techniques and allocation
  - ✓ To provide participants with appropriate competences on the multi-recovery process and organ preservation.
  - ✓ To understand general allocation criteria.

### **Deceased organ donation after circulatory death (DCD)**

1. Uncontrolled DCD (uDCD)
  - ✓ Define the inclusion and exclusion criteria for uDCD.
  - ✓ Describe the out-of-hospital and in-hospital procedures.
  - ✓ Learn how to perform determination of death by circulatory.
  - ✓ Available organ preservation techniques.
  - ✓ Outcomes from uDCD organ transplants.
2. Controlled DCD (cDCD)
  - ✓ Define the inclusion and exclusion criteria for cDCD.
  - ✓ Describe the withdrawal of life-sustaining treatment (WLST) and cDCD preservation/recovery procedures.
  - ✓ Learn how to perform determination of death by circulatory criteria.
  - ✓ Outcomes from cDCD organ transplants.



## Living donation

- ✓ To facilitate participants with update information on living donation as a therapeutic alternative.
- ✓ To consider ethical considerations and international recommendations in living donation.
- ✓ To enable participants to learn how to evaluate a living donor.

## 3. COMPETENCES

Upon completing the training, participants will be able to:

### Organ donation

- ✓ Understand the legislative and regulatory aspects regarding organ donation.
- ✓ Demonstrate knowledge of different types of organs that could be obtained.
- ✓ Handle efficiently the organizational aspects to enhance the detection of potential donors.
- ✓ Demonstrate knowledge the death causes most commonly related to donation.
- ✓ Assess a hospital/unit donation potentiality.
- ✓ Understand the conditions that donors must accomplish.
- ✓ Evaluate biological risk factors.
- ✓ Handle efficiently laboratory screening tests and medical record studies.
- ✓ Demonstrate appropriate knowledge of absolute and relative contraindications for organ donation.
- ✓ Foresee the viability of organs according to the donor
- ✓ Identify and avoid transmission of infectious, malignant neoplasm and other diseases (intoxications and inherited diseases) using strict scientific criteria.
- ✓ Demonstrate knowledge on the essential characteristics of BD.
- ✓ Understand the clinical neurological criteria to diagnose BD.
- ✓ Identify the main findings when using diagnostic instrumental techniques (bioelectrical tests and cerebral flow studies).
- ✓ Understand the special situations that make BD diagnosis difficult.
- ✓ Understand the pathophysiological changes occurred in brain death situation.



- ✓ Identify the clinical signs and symptoms of the pathophysiological changes due to BD and has the knowledge of which of them have the greatest repercussions in donor maintenance.
- ✓ Understand the main goals (especially, haemodynamic and hydroelectrolitic) in donor maintenance.
- ✓ Manage the interview techniques to obtain family consent for organ donation.
- ✓ Plan and follow the organized sequences of the interview with potential donor relatives.
- ✓ Identify the opinion of the deceased person with respect to organ donation for transplant throughout the interview.
- ✓ Formulate adequately the donation/arguments of support to the organ donor family.
- ✓ Facilitate positive arguments to influence family acceptance to donation.
- ✓ Summarize reasons of denial and develop strategies to reverse them.
- ✓ Understand organ procurement techniques.
- ✓ Demonstrate knowledge of the different surgical techniques for organ retrieval: classical technique, “in bloc” technique.
- ✓ Plan and follow the main surgical facts of a multi-organ procurement technique.
- ✓ Understand the main facts that the transplant coordinator has to consider when organizing a multi-organ procurement.
- ✓ Assess the advantages and disadvantages of one unique recovery team versus one recovery team per organ.
- ✓ Demonstrate a good understanding of DCD, uncontrolled and controlled.
- ✓ Understand living donation as a therapeutic alternative, the ethical considerations and international recommendations in living donation.
- ✓ Conduct a living donor evaluation.





### Cross – Curricular Competencies

- ✓ Be able to use ICT (Information and communications technology) required to mobilize the variety of virtual resources available and act effectively during the online training course.
- ✓ Identify skills and self-awareness of their own learning process.
- ✓ Be able to take responsibilities of their own learning.
- ✓ Demonstrate the ability to work independently on a selected topic.
- ✓ Be able to undertake techniques for active participation.
- ✓ Be able to participate actively to boost knowledge building and critical thinking.
- ✓ Demonstrate the ability to acquire, synthesize and use data from different sources.
- ✓ Demonstrate online communication skills for collaborative knowledge building.
- ✓ Be able to undertake collaborative relationships with experts and peers by participating actively in the virtual environment.
- ✓ Manage effectively available materials and resources, media and technology.

## **4. REQUIREMENTS TO ENROL THE PROGRAM**

Select the beneficiaries of the postgraduate programme according to the selection criteria given below and request the following the documents for enrolment: application form, letter of commitment and letter of motivation. The forms are provided as annexes in a separate document, called Postgraduate Programme Preparatory Guidelines for Trainers.

Participants should be selected considering gender equity, equitable geographical representation and inclusion of ethnic, minorities and vulnerable groups. They need to be professionals about to join or involved in:

- ✓ Intensive care unit (ICU)
- ✓ Emergency ward
- ✓ Post-operative care
- ✓ Neurocritical care



- ✓ Anaesthesiology
- ✓ Organ Donor Coordination
- ✓ Transplant surgeons

## 5. METHODOLOGY

The training programme will engage learners at a more personal level by addressing their expectations and needs. Participants will be encouraged to immerse themselves in the learning situation, in order to acquire a better understanding of the new knowledge and retain the information for a longer time. To be truly effective, the educational programme will employ the whole learning cycle, from goal setting, to experimenting and observing, to reviewing, and finally action planning, allowing individuals to learn new skills, new attitudes or even entirely new ways of thinking. Efficient hands-on learning activities will allow learners to put in practice the new concepts.

**A MULTI-LEVEL BLENDED LEARNING PROGRAM will be provided, on three levels of difficulty:**

- Level 1 (awareness) will include motion graphics (with the topic's most important concepts in a nutshell) & storytelling, where a family of characters engage the participants.
- Level 2 (medium). Several webinars will be held by EU and SEA experts to boost debate, answer questions and motivate participants.
- Level 3 (high). Participants will be encouraged to deepen their previous knowledge through in-depth online interactive modules (self-study), followed by 1 local seminar with hands-on focus.

The core postgraduate programme components are designed following the three-level approach as seen below:

### ***Postgraduate Programme Component 1 (PC1), Introduction in Organ Donation***

will include:

#### Level 1: Awareness

*Motion graphic* (microlearning capsules) on organ donation programmes

#### Level 2: Medium:

*Webinar* on Ethics, legislation, situation in the country, organ donation programmes, types of donors

#### Level 3: High

*Self-study* on legal, ethical, religious, cultural and social dimension of organ donation in the country

*Local seminar:* A local seminar will be organized by the local trainers of each university and attendance will be compulsory. It will include the following topics: Ethics, legislation, organ donation and transplantation system in the country, current situation, organ donation programmes, types of donors

### ***Postgraduate Programme Component 2 (PC2) Deceased Donation*** will include:

#### Level 1: Awareness

*Motion graphic* (microlearning capsules) on deceased donation, breaking bad news and family approach for organ donation

Due to the extension of the subject, after the completion of Level 1, Levels 2 and 3 will be approached per Topic, following the different steps and types of deceased donation as follows:

1. Donor detection
2. Brain Death diagnosis
3. Donor management
4. Family approach
5. Organ recovery, preservation and allocation
6. Donation after circulatory death

#### Topic 1: Donor Detection System

##### Level 2: Medium:

*Webinar* on Donor Detection System



### Level 3: High

#### *Self-study on Deceased Donor Detection and Evaluation*

- 1.1. Donation Process
  - 1.1.1. Donor types
  - 1.1.2. Donation process (steps and terminology used)
  - 1.1.3. Measuring and optimizing donation potential and effectiveness Evaluation
- 1.2. Donor Detection and Evaluation
  - 1.2.1. Donor Evaluation
  - 1.2.2. Clinical Contraindications for Donation
  - 1.2.3. The Extended Criteria Donor (ECD)

### Topic 2: Brain Death Diagnosis

#### Level 2: Medium:

*Webinar on Brain Death diagnosis*

#### Level 3: High

#### *Self-study on Brain Death Diagnosis*

- 2.1. Concepts and Definition
  - 2.1.1. Death
  - 2.1.2. Concepts of brain death
- 2.2. Diagnosis of Brain Death
  - 2.2.1. Brain death diagnosis: who and how
  - 2.2.2. Clinical examination
  - 2.2.3. Instrumental tests
  - 2.2.4. Conflictive situations

*Local seminar on Donor Detection, Evaluation and Brain Death  
Diagnosis*

### Topic 3: Deceased Donor Management & Organ Viability

#### Level 2: Medium:

*Webinar on Deceased Donor Management & Organ Viability*



### Level 3: High

*Self-study* on Deceased Donor Management & Organ Viability

#### 3.1. Donor Management

##### 3.1.1. Global Care

##### 3.1.2. Hemodynamic Management

##### 3.1.3. Electrolyte and Endocrine Management

##### 3.1.4. Ventilation Management Donor qualification for security reasons. Risk of transmission

#### 3.2. Organ Viability

##### 3.2.1. Global Evaluation

##### 3.2.2. Abdominal Organs

##### 3.2.3. Thoracic Organs

### Topic 4: Family Approach for Organ Donation

Level 1: Motion graphic (microlearning capsules) on breaking bad news and family approach for organ donation\*

#### Level 2: Medium:

*Webinar* on Family Approach for Organ Donation

#### Level 3: High

*Self-study* on Family Approach for Organ Donation

#### 4.1. Breaking Bad News

##### 4.1.1. Breaking Bad News- Methodology of Communicating Bad News

##### 4.1.2. Communication Skills and Supportive Relationship

#### 4.2. Request for Organ Donation

##### 4.2.1. Making the Request and Dealing with Refusal

##### 4.2.2. Assessing Biological Risk for Transplantation from the Interview with Relatives

*Local seminar* on Family Approach for Organ Donation

\* *Due to the importance of the topic additional time is dedicated to review the microlearning capsules on breaking bad news and family approach for organ donation.*

## Topic 5: Organ Recovery, Preservation and Allocation Criteria in Deceased Donors

### Level 2: Medium:

*Webinar* on Organ Recovery, Preservation and Allocation Criteria in Deceased Donors

### Level 3: High

*Self-study* on Organ Recovery, Preservation and Allocation Criteria in Deceased Donors

#### 5.1. Recovery and Preservation of Organs

5.1.1. Multi-organ Recovery

5.1.2. Organ Preservation

5.1.3. Preservation and Perfusion Solutions. Pulsatile devices for preservation

5.1.4. Hypothermic or Normothermic

#### 5.2. Organ Allocation Criteria

5.2.1. From Organ Sharing to Organ Allocation. General Allocation Criteria

5.2.2. Deceased Donor Kidney, Liver, Pancreas and Small Bowel Allocation

*Local seminar* on Deceased Donor Management & Organ Viability and Organ Recovery, Preservation and Allocation Criteria in Deceased Donors

## Topic 6: Donation after Circulatory Death

### Level 2: Medium:

*Webinar* on Donation after Circulatory Death

### Level 3: High

*Self-study* on Donation after Circulatory Death

#### 6.1. Uncontrolled DCD (uDCD)

6.1.1 SECTION 1: Terminology and determination of Death

- Organ donor terminology
- More classifications



- Certification of Death
- Circulatory death
- Warm ischaemia
- Ischaemia in uDCD
- Inclusion and exclusion criteria for uDCD

#### 6.1.2. SECTION 2: Procedures and Logistical issues

- Out-of-hospital Procedures
- In-hospital procedures
- Donation Authorization
- Preservation Techniques
- Abdominal organ preservation
- Thoracic organ preservation
- Organ Recovery

#### 6.1.3. SECTION 3: Ethical concerns in uDCD

#### 6.1.4. SECTION 4: Outcomes from uDCD

- Kidney Transplant from uDCD (1/2)
- Kidney Transplant from uDCD (2/2)
- Liver Transplant from uDCD (1/2)
- Liver Transplant from uDCD (2/2)
- Lung Transplant from uDCD (1/2)
- Lung Transplant from uDCD (2/2)

### 6.2. Controlled DCD

#### 6.2.1. SECTION 1: WLST and Predicting likelihood of Asystole

- Inclusion and exclusion criteria for cDCD
- WLST
- Ante-mortem Interventions
- Donation Authorization
- Predicting likelihood of reaching asystole in required timeframe
- Certification of Death

#### 6.2.2. SECTION 2: Procedures and logistical Issues

- Referral to the Organ Procurement Organization
- Location of withdrawal of ventilatory support



- Preservation Techniques
  - Recovery Techniques
    - 6.2.3. SECTION 3: Ethical concerns in cDCD
    - 6.2.4. SECTION 4: Outcomes from cDCD
  - Kidney Transplant from cDCD
  - Liver Transplant from cDCD
  - Pancreas Transplant from cDCD
  - Lung Transplant from cDCD
  - Heart Transplant from cDCD

**Postgraduate Programme Component 3 (PC3), Living Donation** will include:

Level 1: Awareness

*Motion graphic* (microlearning capsules) on living donation

Level 2: Medium:

*Webinar* on Living Donation

Level 3: High

*Self-study* on Living Donation

- 7.1. Living donation as a therapeutic alternative
- 7.2. Ethical considerations & International recommendations
- 7.3. Living donor evaluation

*Local seminar* on Living Donation

There will be three cross-curricular components to be carried out in parallel or at the end of the core PCs. They are as follows:

**Cross-curricular Component 1 (CC1) includes: *On-the-Job Improvement Projects***

It will transform learner's everyday work to an environment of lifelong learning and will help its beneficiaries to further build their knowledge and strengthen their ability to respond to situations that require efficient problem-solving. In this regard postgraduate programme learners will be requested to identify an organ donation related practice that can be improved in their clinical environment through the newly acquired competences and to develop in small working groups one on-the-job-improvement-project. Full details regarding CC1 below.





**Cross-curricular Component 2 (CC2) includes: Awareness Events** (Bilingual English/local language). Trainers together with students of each university will organize at least ONE informative/awareness event in their university/region/country with at least 50 attendees to ensure the visibility of the new programme and boost interest. Guidance has been provided during the Train the Trainers programme and awareness event proposal have been developed together with the local trainers to be.

**Cross-curricular Component 3 (CC3) includes: International Assessment Seminars**  
There will be two International Assessment Seminars each of 5 days. EU experts and local trainers will evaluate learners' competences acquired throughout the learning programme. The 280 participants will be divided in 2 groups of 140 learners. Each international seminar will target 140 participants.

This structure will permit a major flexibility for participants and will reduce travel and accommodation expenses. Moreover, to ensure the visibility of the new programme and boost interest informative events will be organized in each university.

The learning methodology will boost networking, best practice exchange and will promote great interactivity in the learning environment created.

To summarize the postgraduate programme will include the following:

- A. 4 MOTION GRAPHICS** (microlearning capsules) (1 ECTS=25 study hours) on organ donation, living and deceased
- B. 8 WEBINARS** (2 ECTS\*=50 study hours)
  1. Ethics, legislation, situation in the country, organ donation programmes, types of donors
  2. Donor detection
  3. Brain Death diagnosis
  4. Donor management
  5. Family approach



6. Organ recovery, preservation and allocation
  7. Donation after circulatory death
  8. Living donation
- C. SELF-STUDY (13 ECTS):** 8 engaging self-study online contents (12 ECTS=300 study hours) where learners will deepen and broaden their knowledge on
1. Ethics, legislation, situation in the country, organ donation programmes, types of donors
  2. Donor detection
  3. Brain Death diagnosis
  4. Donor management
  5. Family approach
  6. Organ recovery, preservation and allocation
  7. Donation after circulatory death
  8. Living donation

Each topic will develop a core structure with factual information based on written materials and audio-visual support and will promote a proactive learning. Self-assessing activities with practical applicability will be developed, in order to enable learners to demonstrate their ability to work independently on selected topics; demonstrate the ability for conceptual thinking and original thought; demonstrate systematic application of the knowledge acquired to a selected topic; demonstrate the ability to acquire, synthesize and use data from different sources.

The advantages of e-learning are:

- ✓ Flexibility
- ✓ Access anytime and from anywhere
- ✓ Low costs
- ✓ Continuous building of knowledge and skills
- ✓ Ongoing monitoring and evaluation

**D. 5 LOCAL SEMINARS IN ORGAN DONATION (5 ECTS = 125 study hours)**

The local trainers of each university will organize a total of 5 local seminars and **attendance will be compulsory**. It will include the following topics:



- Ethics, legislation, organ donation and transplantation system in the country, current situation, organ donation programmes, types of donors
- Donor Detection and Brain Death Diagnosis in Organ Donation after Brain Death
- Breaking Bad News and Family Approach in Deceased Organ Donation
- Management and Organ Viability in Organ Donors after Brain Death & Organ Recovery, Preservation and Allocation Criteria in deceased donors
- Living donor evaluation

The local seminars will last 1 day each and the contents may be provided through different modalities:

- Knowledge recalling sessions
- Interactive lectures
- Cases Studies
- Workshops and Simulations

Local seminars will reinforce the knowledge through learning by doing methodology and will be designed to put into practice the contents acquired previously, therefore, will facilitate the switch from the theoretical knowledge to practice. The local seminars will help learners achieve further knowledge in donation and improve their core competences, for better clinical performance and patient outcome.

#### **E. ON-THE-JOB IMPROVEMENT PROJECTS (5 ECTS=125 study hours)**

In order to ensure that learning is transferred into practice, postgraduate programme students will be requested to develop in small groups one on-the-job-improvement-project. These projects will give students the opportunity to identify an organ donation related practice that can be improved in their clinical environment through the newly acquired knowledge, skills and behaviours.



The topics of such projects have been identified and agreed together with their local trainers in order to ensure that the projects tackle local realities and clinical gaps. A total of five topics have been shortlisted, prioritized and enlisted below, according to their importance in the SEA partner countries.

In this way what students learn in the academic environment will be transferred to practice and evaluated/measured.

The projects will illustrate the need (and how this need was identified), will formulate clear objectives, followed by the actions proposed and undertaken to minimize the gaps identified, and last but not least the initial/foreseen results as well as conclusions and recommendations.

The topics for the on-the-job improvement projects are the following:

### 1. **Brain death donor potentiality**

**Objective:** Identify and assess the hospital brain death donor potentiality at the critical care units and compare the potentiality against international references.

**Materials and Methods:**

- Death patients from **Intensive care units** and **emergency department** from the hospital selected
- Medical records review of all death patients focuses on patients with severe neurological damage (ICD-COD 10)
- 6 months retrospective review
- Definition of the hospital situation (number of beds, number total hospital deaths, number of admissions, Hospital services, human resources, etc.), Organ Donation Diagnosis Survey (ODDS)

### 2. **Hospital staff attitude in organ donation**

**Objective:** Identify and assess the attitude and knowledge about organ donation from the hospital staff

**Materials and Methods:**

- Attitude and knowledge in organ donation survey (anonymous)
- Targeted hospital services: ICU, ER, OR
- Awareness event performed at the targeted services



- Post- awareness event survey

### 3. **Prospective possible donor identification**

**Objective:** Identify on daily basis the possible donors from ICU

**Materials and Methods:**

- Protocol definition: Possible donors' proactive identification, monitor and referral.
- Deceased Alert system template (Excel form)
- Daily monitoring of possible donors and registry at the template
- 5 months prospective data collection, identification of the main barriers for donor conversion rate.

### 4. **Death by neurological criteria monitoring**

**Objective:** Identify the probable and confirmed brain death cases during the study period and the main hospital barriers for the diagnosis.

**Materials and Methods:**

- Identification of the brain death diagnosed between January to June 2018 in ICU.
- Protocol definition: Hospital brain death diagnosis protocol
- Monthly record cases of probable and confirm brain death. Record of the causes why a probable brain death doesn't progress to confirmed brain death.
- 5 months prospective data collection, identification of the main barriers for brain death diagnosis (lack of human resources, lack of equipment, etc.)

### 5. **Project Title: Living donor satisfaction survey**

**Objective:** To evaluate the living donor's satisfaction and impact of the donation considering quality of life aspects, perception and acceptance of donation process and psychological well-being.

**Materials and Methods:**

- 6 months retrospective data collection
- Kidney transplant patient from living donors
- Satisfaction survey



#### **F. AWARENESS EVENTS (1ECTS=25 study hours)**

(Bilingual English/local language). Trainers and learners of each university will need to organize at least ONE informative/awareness event in their university/region with at least 50 attendees to ensure the visibility of the new programme and boost interest.

#### **G. 2 FACE-TO-FACE INTERNATIONAL ASSESSMENT SEMINARS (4 ECTS=100 study hours), each of 5 days. The 280 participants will be divided in 2 groups of 140 learners. Each international seminar will target 140 participants. EU experts and SEA local trainers will evaluate students' competences through practical activities.**

It will consolidate and complement the acquired competences e on organ donation and allow continuous evaluation through the different sessions.

They will include:

- Welcome+ methodology explanation
- Assessment of knowledge on organ donation through different hands-on sessions and practical activities on both: Living donor evaluation & Organ donation from deceased donors.

Assessment tools will be developed, agreed on and provided to experts prior to the seminar.

### **6. CURRICULUM EVALUATION**

Once the Curriculum is designed by EU experts and local trainers, the local trainers were asked to identify 40 students from the 8 universities (who will benefit from the postgraduate program). They were be provided with the curriculum design together with an evaluation tool (a rubric as the one seen below) using the following scoring scale: 1- exceeds expectations, 2 – meets expectations to 3 – does not meet expectations. Results have been centralized and evaluated, and improvements have been made accordingly. The Postgraduate Programme Preparatory Guidelines includes further information along with the rubric proposed for evaluation.

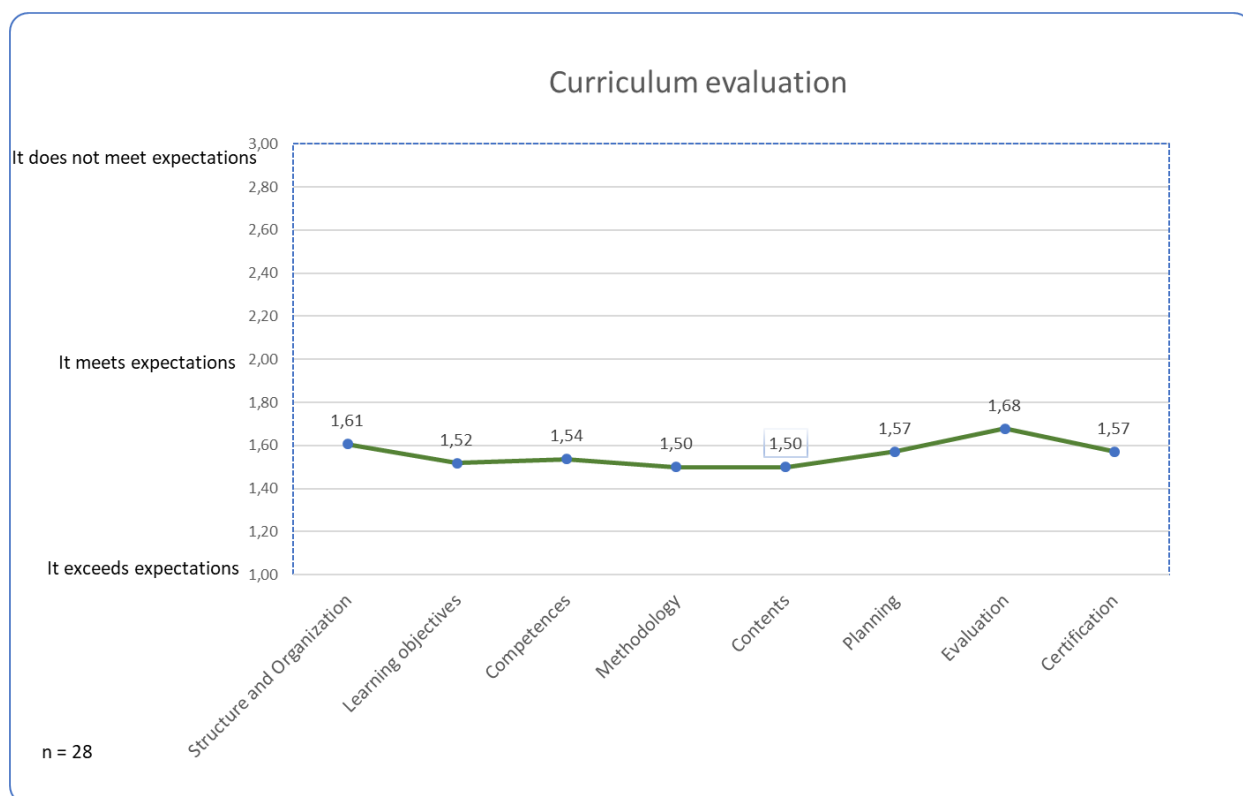
The results of the curriculum evaluation are shown below and more information can be found annexed.



**Example rubric for evaluation:**

CRITERIA	EVALUATION
Structure and Organization	
Learning objectives	
Competences	
Methodology	
Contents	
Planning	
Evaluation	
Certification	

**Curriculum evaluation results:**





<b>CRITERIA</b>	<b>EVALUATION RESULTS</b>
Structure and Organization	1,61
Learning objectives	1,52
Competences	1,54
Methodology	1,50
Contents	1,50
Planning	1,57
Evaluation	1,68
Certification	1,57



## 7. PLANNING

		January	February	March	April	May	June	July	August	September
<b>PC 1</b>	<b>Introduction in organ donation</b>									
	Pre-test	from 7 to 13-jan								
	Motion graphics									
	Webinar	from 9 to 16-jan								
	Self-study		21-jan							
	Local seminar	from 9 to 20-jan	from 20-jan to 09-feb							
<b>PC 2</b>	<b>Deceased donation</b>									
	Motion graphic deceased donation		from 10 to 16-feb							
	<b>Donor Detection (DDS)</b>									
	Webinar		18-feb							
	Self-study		from 17-feb to 01-mar							
	<b>Brain death (BD)</b>									
	Webinar			10-mar						
	Self-study			from 09 to 22-mar						
	Local Seminar (DDS + BD)			from 16 to 29-mar						
	<b>Donor management (DMOV)</b>									
	Webinar				31-mar					
	Self-study				from 30-mar to 12-apr					
	<b>Family Approach (FA)</b>									
	Motion graphic				from 13 to 19-apr					
	Webinar				21-apr					
Self-study				from 20-apr to 27-apr						
Local Seminar					to 03-may to 10-may					
<b>Recovery and allocation (ORPA)</b>										
Webinar						12-may				
Self-study						from 11 to 24-may				
Local Seminar (DMOV + ORPA)						from 18 to 31-may				
<b>DCD</b>										
Webinar							2-june			
Self-study							from 1 to 14-jun			
<b>PC 3</b>	<b>Living donation</b>									
	Motion graphic						from 15 to 21-jun			
	Webinar						23-jun			
	Self-study						from 22-jun to 29-jun	to 05-jul		
Local Seminar							to 12-jul			
<b>CC</b>	<b>Awareness events</b>			from 01-mar						
	<b>On-the-job projects</b>			from 01-mar						
	<b>Re-evaluation</b>							Drafts to be submitted by July 19	Final deadline: 30-aug	Presentations from 01 to 15-sept
<b>International assessment seminars</b>								from 15-aug	to 30-sept	



## 8. EVALUATION

1. **Pre-test:** to assess participants' knowledge before they start the academic programme. The pre-test will consist of a quiz with multiple choice questions (MCQ), each MCQ including 4-5 possible answers and only 1 correct option, together with feedback and references (see model in continuous evaluation). For the pre-test there will be limited time for completion (3h), and students will have the right to ONE attempt. Feedback on right and wrong answers will not be given before the completion of both pre and post-tests, as the pool of questions will include partially identical questions to allow comparison.
2. **Continuous Evaluation.** Assessment will be integrated in students' learning process. All activities proposed in the current curriculum promote the achievement of the learning objectives set and the acquisition of the competencies listed above. Relevant individual activities will be completed within the different components as follows:
  - **Motion graphics:** there is no formative or summative evaluation foreseen for this part. However, their completion is compulsory to approve and proceed with the rest of the postgraduate programme.
  - **Webinars:** the expert of each webinar will be requested to provide a 5-MCQ quiz in the format provided below (see model) prior to the webinar together with the PPT. The MCQs will be digitized and made available to students shortly after each webinar.

Participation to webinars is highly recommend but not compulsory in case of limited availability due to professional commitments. Webinar recordings will be available shortly after the webinar together with the related quizzes. Participants will be required to take all the quizzes and approve each of them in order to proceed with the rest of the postgraduate programme. The minimum approval grade is 8 on a scale from 1 to 10 (4 out of 5 MCQs). They will have TWO attempts to reach this baseline.



MCQ model: **Which of the following is the most reliable test to identify a urinary tract infection?**

1. Urine Legionella antigen
2. Quantitative urine culture
3. Urine microscopy
4. Renal ultrasound
5. Blood culture

**Feedback** Diagnosing urinary tract infections can be challenging, especially in distinguishing between active urinary tract infection and colonization. However, the most reliable diagnostic test to identify a urinary tract infection is a quantitative urine culture, especially if there is bacterial growth in excess of 10<sup>5</sup> colony forming units/mL.

Urine Legionella antigen is a diagnostic test used to aid in the diagnosis of Legionella pneumonia, not urinary tract infections (A). Urine microscopy can suggest the presence of a UTI, particularly if there are a significant number of WBCs in the tested sample, but there are many confounding factors, and a quantitative urine culture is a more specific test (C). Renal ultrasound can be useful to identify the presence of obstruction and hydronephrosis, but these processes are not always infectious, nor do they identify lower tract UTIs (D). Blood culture remains one of the standard tests for the diagnosis of bacteremia, and while bacteremia can occur as a result of severe UTI, it is not a test to specifically diagnose UTIs (E).

**Reference:** Grabe et al. Guidelines on Urological Infections 2017 from European Association of Urology

- **Self-study contents:** upon the completion of each deceased and living donation content, students will need to complete a self-assessing activity consisting of 5 MCQs. The minimum approval grade is 8 on a scale from 1 to 10 (4 out of 5 MCQs). They will have unlimited attempts to reach this baseline.

- Local seminars: for each local seminar local trainers will be requested to develop a quiz based on the same model of MCQs (unless the university has different assessment requirements) and in compliance with the seminar programme. The scoring scale applied shall be from 1 – very poor to 10-excellent. Approval grade of this component is minimum 7 on a scale from 1-poor to 10-excellent. Participation to all 5 local seminars is compulsory. Two attempts are allowed for the test.
- Awareness events: there is no formative or summative evaluation foreseen for this part. However, participation is compulsory to approve and proceed with the rest of the postgraduate programme.
- On-the-job improvement projects: clear evaluation criteria will be agreed by international experts and local trainers considering: Project Design, Schedule fulfilment, Attendance to the tutorial sessions, Bibliography review, Data processing, Synthesis capacity, Use of the available resources. The projects proposals will be provided to international experts and local trainers by email before July 19, 2020. Students will be requested to prepare a short PPT per working group, of maximum 10 slides, which they will present during the Internal Assessment Seminar. Experts and trainers will give the required feedback for improvement. Changes will need to be implemented by August 30, 2020, when final projects will be sent by email to international experts and local trainers for evaluation. Final presentations will be made via Skype between 1 and 15 of September 2020. In case some projects will still lack the minimum of quality required, they will enter in re-evaluation to be completed by September 30, 2020. Approval grade of this component is minimum 5 on a scale from 1 to 10.
- Face to face International Assessment Seminars: continuous evaluation through different methods will be applied. Participation in and approval of this component with minimum 7 on a scale from 1 to 10 is compulsory to complete the postgraduate programme.

Students will be requested to participate and approve each component of the postgraduate programme according to the criteria enlisted above.



Evaluation tools will be developed and made available for each programme component by international experts and/or local trainers, according to the component.

3. **Final evaluation test.** Upon the completion of the postgraduate programme, students will be evaluated through a final evaluation test, so that trainers can assess the impact of the training program on participants' knowledge before and after the educational intervention will consist of a quiz with multiple choice questions (MCQ), each MCQ including 4-5 possible answers and only 1 correct option. Feedback on right and wrong answers will not be given before the completion of both pre and post-tests, as the pool of questions will include partially identical questions to allow comparison. While working on the test participants need to know the following:

- Limited time of 3 h for one attempt
- TWO attempts are allowed
- An online tool in the virtual platform allowing the student to "Submit all and finish".
- Minimum approval grade: 7 on a scoring scale from 1-poor to 10-excellent
- An online tool with the Grades section where participants can consult qualifications acquired.

4. Re-evaluation

Webinars, self-study, local seminars and on-the-job improvement projects allow either several attempts or re-evaluation in case of failure in the evaluation quizzes (see planning calendar for details). However, the participation in the Awareness event and the Face to Face International Assessment Seminar is **COMPULSORY**. Failing to attend and/or failing to pass successfully the evaluation carried out throughout the international seminar will lead to disqualification.

## 9. CERTIFICATION

The postgraduate programme is conceived as a blended training program, in accordance with the European Space for Higher Education guidelines and adapted to the needs of South-East Asian professionals, based on a common curriculum and certification degree (\*ECTS-European Credit Transfer and Accumulation System).

The ECTS is a tool which ensures comparability in the standards and quality of higher education qualifications and enables students to collect credits for learning attained throughout higher education. It facilitates comparisons and provides a clearer understanding of the workload involved in programmes/courses. Moreover, this system aims to increase transparency of learning outcomes and learning processes and facilitate the recognition of studies.

**As it is a curricula reform project, accreditation requirements and procedures required by universities and national competent authorities for higher education have been identified to ensure that the study programme fulfils the stipulations for accreditation (ECTS) and achieve its certification in each University (in the format allowed by their academic structure).** Moreover, its recognition and inclusion in the curriculum of universities with medical profile will be enabled with the support of the national/regional competent authorities for higher education and the Europe-South East Asia network to be established during the project lifetime.

Upon successful completion, a Postgraduate/specialization diploma of accomplishment will be issued, corresponding to 30 ECTS.

## 10. ROLE AND RESPONSIBILITIES OF EXPERTS/TRAINERS

### EU Experts' Roles & Tasks

- ✓ To ensure that the academic content is in line with the European policies, recommendations and regulations.
- ✓ To prepare and deliver the 8 webinars and related quizzes
- ✓ To prepare and deliver the Face to Face International Assessment Seminars
- ✓ To evaluate On-the-Job Improvement Projects together with the local trainers



- ✓ To provide support and feedback to the local trainers throughout the postgraduate programme.
- ✓ To promote know-how exchange and share best practices.

### **Local trainers' roles & tasks**

- ✓ To facilitate the learning process throughout the entire postgraduate programme
- ✓ To monitor and support learners and motivate them continuously to actively participate and share knowledge as well as best practice.
- ✓ To ensure that all results are centralized in the virtual support classroom dedicated to the postgraduate programme
- ✓ To get actively involved in the organisation of the 8 webinars together with the EU experts.
- ✓ To perform continuous follow up and guidance throughout the self-study.
- ✓ To organize and coordinate the 5 local seminars on organ donation.
- ✓ To invite the required experts for the different topics covered within the seminars.
- ✓ To promote knowledge building, critical thinking and problem solving through debates, practical activities, simulations, and case studies during the local seminars.
- ✓ To organize the on-the-job improvement projects of the participants from their university and coordinate their work.
- ✓ To organize and implement along with the EU experts the two International Assessment Seminars.
- ✓ To develop a portfolio per participant with the activity and qualifications obtained throughout the whole training program.
- ✓ To organise together with their students an awareness event in their university.
- ✓ To follow up on the accreditation process of the postgraduate programme.



## ANNEXES

### *ODISSeA Postgraduate Program in Organ Donation*

#### *Local seminars Course Organization process*

##### **1- Preliminary steps**

- Establish an organizing committee. It is important to determine the Secretariat as a contact point for promoters, teachers and participants.
- Reach agreements with the university hospital head office / university departments.
- Take into account your audience and their background (postgraduate program participants)
- Set convenient dates and times (agenda)
- Create and design the participants registration procedures.
- Book classrooms/conference room and technical equipment required.
- Prepare the program in accordance to the ODISSeA model, adapting it to local needs.
- Invite and confirm teachers notifying previously the learning objectives of their lectures.
- Arrange catering services (optional)
- Prepare the educational material to be used and/or given out to the participants.
- Manage the continuing education and follow up system

##### **2- Course promotion**

- Give visibility to ODISSeA Project and to the Postgraduate Program in Organ Donation
- Use the banner during the seminar
- Share the event with the university's communication department, social media...

##### **3- Participants' registration**

- Elaboration of a participants' directory for registry and attendance control.

##### **4- Preparation of educational material**

- Use the Educational Kit to prepare your local seminar
- Attendance control sheet





- Course program
- Lectures and Organization online evaluation
- Any relevant local information that could be convenient for organ donation (i.e. local regulations)

Others:

- Folders
- Brochures
- Blank sheets

## **Course development**

### **1- Course structure**

#### Length

The course should last 6-8 academic hours.

#### Methodology

The course consists of theoretical classes and practical activities. After each session, time for discussion will involve participants and teachers, improving the conceptual knowledge acquired.

#### Evaluation

For the online course evaluation, the participants perform an assessment by means of a survey including theoretical and organisational aspects.

#### Participants

The participants are the 35 enrolled learners to the Postgraduate Program in Organ Donation

#### Language of instruction

We encourage you to implement the local seminars in the local language to guarantee the communication among participants and faculty members. In this case, the materials should be bilingual, in English and local language.

### **2- Seminar coordinators' tasks**

- Set the appropriate dates according to the postgraduate calendar
- Establish the local faculty to be invited
- Develop the seminar agenda and ensure that the required resources are available
- Communicate the seminar related information to participants
- Carry out short tests and check the participants satisfaction after each seminar



- Report and provide the required documentation to project experts

### **3- Suggestions for success**

- Make the convenient program arrangements in the timetable, according to your needs and target audience availability to assure the maximum attendance to the entire program.
- Send official invitation letters to the faculty to guarantee their attendance and to give weight to the course. These letters should include the learning objectives, lecture time and the course description. Try to involve authorities, directors, managers, or someone important for the course presentation.
- Prepare ID badges.
- Arrange a reception desk to register the participants upon their arrival placed at the conference room entrance.

### **4- Technical Equipment Needed**

According to the course structure proposed, you may need some technical and logistic equipment to implement the local seminar:

- Conference room with capacity for 40-50 persons.
- 1 screen
- 1 LCD projector
- 1 computer
- 2 microphones
- 1 flip chart/black board
- Internet connection

## **Evaluation and Follow-Up**

### **1- Follow-up**

The evaluation of the local seminars plays an important role in the development of the ODISSeA Project. As the faculty, we would ask you to:

- Report results (tests, evaluations and attendance control) on the online platform with a maximum of 15 days after the seminar performance.
- On the virtual platform, you will be required to introduce the following information for each local seminar
  - Title of the seminar
  - Objectives
  - Contents
  - Methodology



- Proposal of activities
- Proposal of evaluation (self-test)
- Carry out a control 3 months after the seminar event to check if any of the participants has been involved in activities related to donation and to keep their level of motivation up.

*Awareness Event preparation*  
**Check-list**

<b>Task/activity</b>	<b>Confirmation</b>
<i>3 months before</i>	
1st meeting with Organizing Committee (OC)	
Designated contact person	
Programme - first draft	
Experts/speakers nomination and selection	
Venue proposal and permission requests (if any)	
<i>2 months before</i>	
Venue selection and confirmation	
Final list of experts (speakers)	
Invitations to experts	
<i>1 month before</i>	
Final programme confirmation	
Participants invitation and promotion of the event	
Materials preparation	
Evaluation survey draft	



<i><b>1 week before</b></i>	
Materials printed (welcome letter, program, evaluation, cession of image document, etc.)	
Meeting for organisation and coordination of the event	
<i><b>During the event</b></i>	
Logistical and technical support on site	
Photos	
Catering (if any)	
Evaluation Survey	
Press conference	
<i><b>After the event</b></i>	
Event evaluation report	
Media dissemination and impact	

*Curriculum Evaluation results*

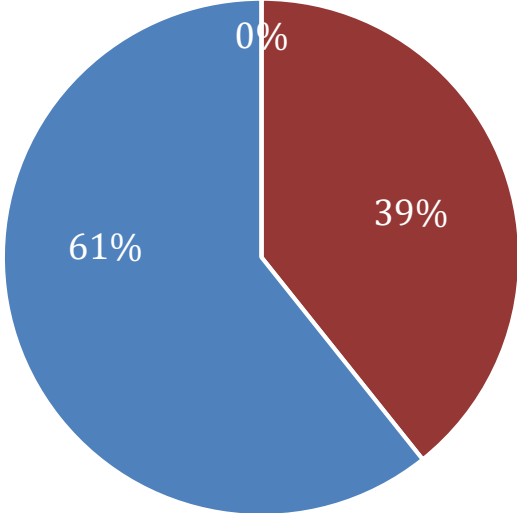
	Structure and Organization	Learning objectives	Competences	Methodology	Contents	Planning	Evaluation	Certification	
1	Peer review 1	1	2	1	1	1	3	1	2
2	UM1	2	2	2	2	1	2	2	2
3	UM2	1	1	1	2	2	1	2	2
4	UM3	2	2	2	2	2	2	2	2
5	UM4	1	1	1	1	1	1	1	1
6	UM5	2	1	1	1	1	1	1	1
7	UM6	2	1	2	1	1	1	2	1
8	UM7	2	2	2	2	1	1	2	2
9	UMM1	2	2	2	2	2	1	2	2
10	UMM2	2	2	2	2	2	2	2	2
11	UMM3	1	2	2	2	1	1	2	2
12	UMM4	1	1	2	1	1	2	2	1
13	UMM5	1	2	1	2	2	1	2	1
14	UMM6	2	1	2	1	2	2	2	1
15	UMM7	2	2	2	1	2	2	1	2
16	UMM8	2	1	1	2	1	2	2	2
17	UMY1	2	1	2	2	2	2	2	1
18	UMY2	2		1	1	2	2	2	2
19	UMY3	2	2	2	2	2	2	2	2
20	UMY4	2	2	2	2	2	2	2	2
21	UMY5	2	2	1	2	2	2	2	2
22	UST1	2	2	2	2	2	2	2	2



23	UST2	1	1	1	1	2	1	1	1
24	UST3	1	1	1	1	1	1	1	1
25	UST4	1	1	1	1	1	1	1	1
26	UST5	2	2	2	1	1	2	2	2
27	AddU2	1	1	1	1	1	1	1	1
28	MU1	1	1	1	1	1	1	1	1
		1,61	1,52	1,54	1,50	1,50	1,57	1,68	1,57

One of the evaluations from AddU has been withdrawn due to a suspected mistake regarding the evaluation scale. The problem is being clarified and the evaluation will be integrated once the misunderstanding is solved.

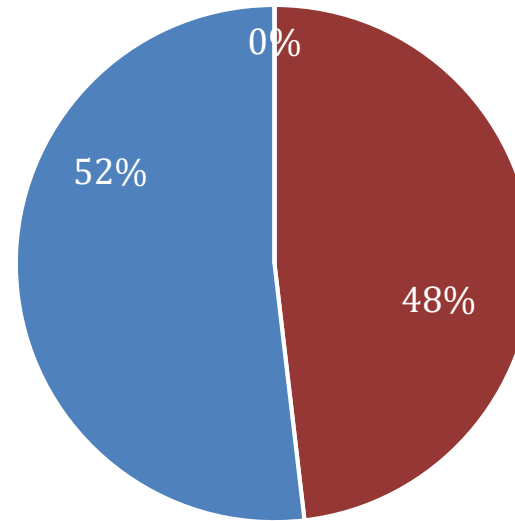


CRITERIA	EVALUATION RESULTS
Structure and Organization	<p style="text-align: center;"><b>Structure and organization</b></p>  <p style="text-align: center;">n = 28</p> <ul style="list-style-type: none"> <li>■ 1 Exceeds expectations</li> <li>■ 2 Meets expectations</li> <li>■ 3 Does not meet expectations</li> </ul>



Learning objectives

Learning objectives



- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

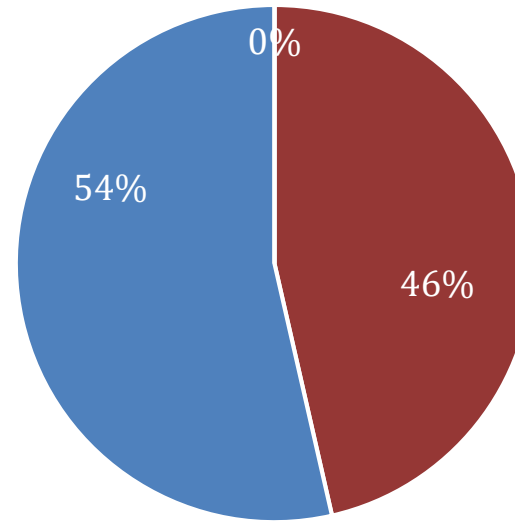
n = 28





### Competences

### Competences



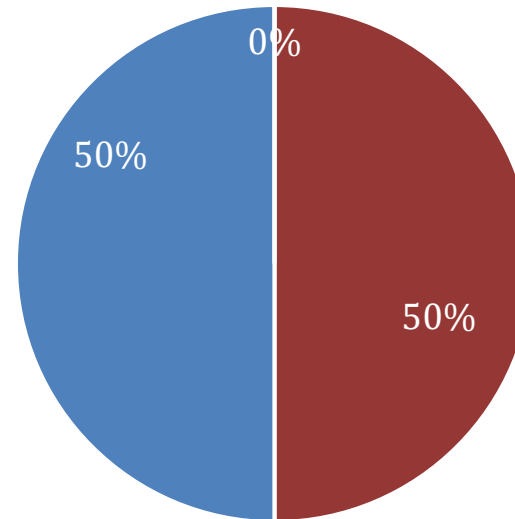
- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

n = 28



Methodology

Methodology



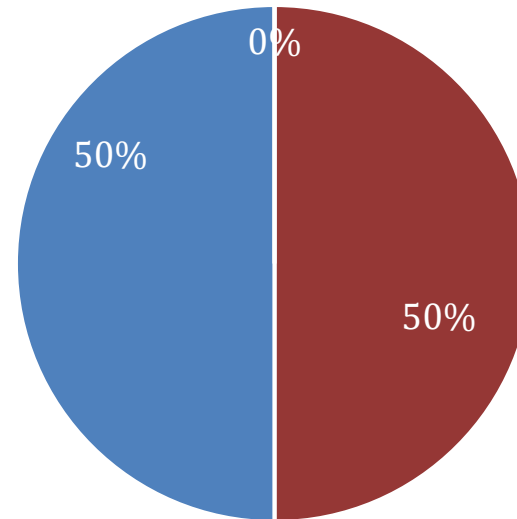
- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

n = 28



Contents

Contents



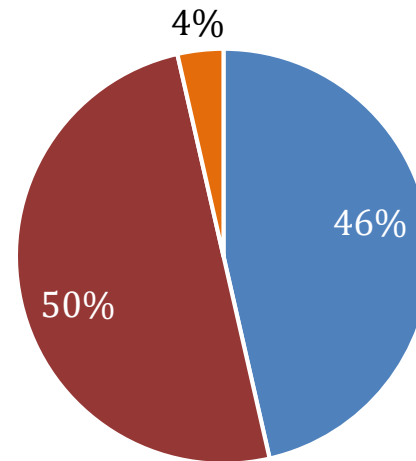
- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

n = 28



Planning

Planning



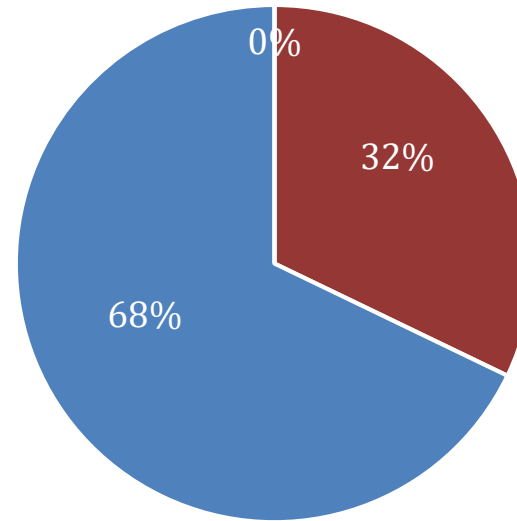
- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

n = 28



Evaluation

Evaluation

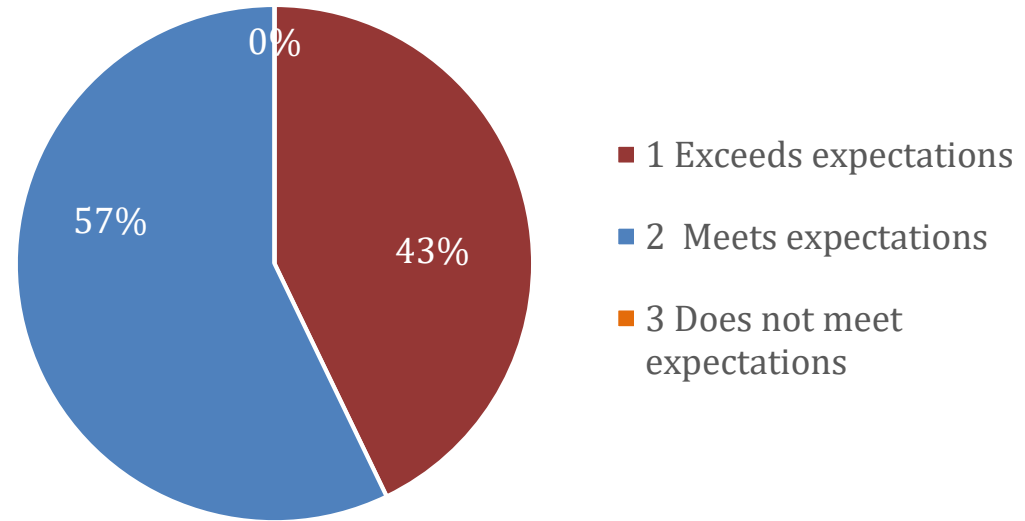


- 1 Exceeds expectations
- 2 Meets expectations
- 3 Does not meet expectations

n = 28

Certification

Certification



n = 28

**Peer to peer review 1**

**Comments with 1-2**

**Suggestions:**

I would include WHO principles in the ethical framework



I would enhance organ preservation methods

**Observation**

It's a bit packed. Difficult to be respected by so many people

**Question**

Final test: why minimum is 5 and not 6?

**UM2**

**Comments with 1-2**

**Observations**

Clearly laid out and well planned

Detailed learning objectives

Multimodal method of learning

**UM6**

**Comments with 1-2**

**Observations**

Well thought-out

Clear and achievable objectives



Very well structured!

Extensive and well rounded

Well planned

Good timing allocation

Great to have a diploma at the end of the course

### **Suggestions**

A flow chart could be helpful in illustrating the structure

It'll be good if the competences could be compartmentalised into donor management (clinical, administrative and psychosocial) and surgical aspect.

Also, the methods of assessing the various competencies could be spelt out to give a clearer idea.

It'll be great if it can be tied to the competences component

### **UMM1**

#### **Comments with 1-2**

### **Questions**

I am not familiar with methodology. Should we get extra course or enough methodology courses are already included?

May we get Diploma for this course? or only certificate?





### UMM3

#### Comments with 1-2

#### Observations

It is useful for deceased organ donation programme.

It is complete and concise objectives.

It is a competent one.

Good, adequate contents are seen in the Project.

Excellent plan.

Good and adequate evaluation processes are done.

Good certificate.

### UMM5

#### Comments with 1-2

#### Observations

Perfect

Good and suitable with our country's needs.

Since we just started DDT, we need to try to establish competences and need the government supports and public awareness too.



Good but there's a little concern for Myanmar because of the shortage of manpower and resources.

In Myanmar, brain death can only be diagnosed clinically, CT and MRI and it's difficult to be diagnosed by EED. It's also difficult to keep the brain-dead patients in ICU because of the limited number of beds.

For Myanmar, it is difficult for all 35 trainees to attend the international seminars together because there is limited number of doctors and nurses in our country hospitals. There's also no budget support from the government and grant can't still be withdrawn.

Certificate course is enough for our country.

### **Suggestion**

It's better to evaluate with 20 MSQs rather than 50 MSQs.

### **UMM7**

#### **Comments with 1-2**

#### **Observations**

Well organized

There seems to be many learning objectives because in a multidisciplinary team tasks are divided but in a very initial state all participants should try to learn as much as they can.

The best possible method is chosen

Great. What I like best is "minimal approval grade"



## **UMM8**

### **Comments with 1-2**

#### **Suggestion**

We will need to try more to get such competences because we are not much familiar with DDT.

## **UST1**

### **Comments with all 2**

#### **Questions**

Will there be follow-up on the proper allocation and status of the organs after donation? Evaluation of appropriate organ donation selection and recipient selection as well?

## **UST2**

### **Comments with 1-2**

#### **Observation**

Consider local context (e.g., challenges, cultural, political determinants of organ donation)

## **UST5**

### **Comments with 1-2**



Co-funded by the  
Erasmus+ Programme  
of the European Union



extensive objectives

Competences thoroughly explained

Contents well outlined