

Module 5 : Total Parenteral Nutrition and IV Admixture (3.6 ECTS/2CSU)

Total Parenteral Nutrition and IV Admixture	
Code/ Status	: MFK 630/Compulsory
Module level	: Master
Semester	: 1
Module Coordinators/ Lecturers	: Chairun Wiedyaningsih Fita Rahmawati Rina Mutiara
Language	: Indonesian
The format/class hours per week during the semester	: Case-based lecture, Classroom Lecture, and Practice based Learning; 100 minutes/weekly and 16 weeks during the semester
workload	: 100 minutes of in-class lectures, 120 minutes of structured activities, 120 minutes of weekly self-study
Credit points	: 3.6 ECTS/2 CSU
Requirements	: No
Learning goals/ Course Outcomes	: Students are able to: <ol style="list-style-type: none">1. understand the basics or concepts of parenteral nutrition and design a TPN formula that is suitable for the patient's daily energy needs2. identify incompatibilities and instability in preparation of parenteral preparations3. understand aseptic dispensing basics4. demonstrate IV parenteral preparation
Content	: This course deals with the basics of aseptic dispensing such as the concept of cleanroom, aseptic technique in mixing injection preparations, IV admixture and Handling cytostatic agent; factors that affect compatibility and incompatibility in dosage IV; Total Parenteral Nutrition (TPN) which covers the basics of parenteral nutrition, calculation of making TPN preparations, advantages and disadvantages, complications and monitoring parameters, correct mixing method.
Study/exam achievements	: A-E, 20% practice exam, 30% Midterm and 50% final exam
Forms of media	: Face to face instruction, Slides, Board, internet
Literature	: <ol style="list-style-type: none">1) Lawrence A, Trissel, 2009, Hand book on injectable drug, 15 th edition, American Society of healyjsystem Pharmacist, Bethesda, Maryland2) Allen Stephen J, Catalango-Angus Mary L, Cohen Michael R, Delfino Daria, Guynn Robert S, Scheckelhoff Douglas J, Shepherd Michele F and Zajac Kevin W (Ed), 1993, Manual for Pharmacy Technician, American Society of Health System Pharmacies. Inc., Wincosin Avenue, Bethesda3) PIC/S Guide to Good Practices for The Preparation of Medicinal Products in Healthcare Establishments, 2008, http://www.picscheme.org4) Competency Framework for Specialist Nutrition Pharmacists, 1st ed, British Pharmaceutical Nutrition Group, 2008

5) Banker, GS and Rhodes, C. T. (Ed), 1996, Modern Pharmaceutics, 3rd, Marcel Dekker, Inc New York
