Title	Evaluation of patients with circulatory insufficiency
Description	• Rapid evaluation with the 'ABCD' approach; • Take a focused history of a patient with circulatory insufficiency in an Emergency Room, Coronary Care Unit, ward or urgent outpatient clinic (outside Operating Room and Intensive Care settings) ; • Perform a physical exam, including 'ABCD' and vital signs; • Order and interpret *basic* diagnostic tests (blood, chest X-ray, ECG); • Draft and rank a differential diagnosis in a patient with circulatory insufficiency; • Propose initial management and treatment plans. This EPA does <u>not</u> comprise: • Care for the patient (nearly) in a cardiopulmonary resuscitation setting • Care for paediatric patients with circulatory instability (< 16 years) • Interpretation of advanced diagnostic tests (cardiac catheterisation, echocardiography)
Link to competency domains	CanMEDS (Dutch KNMG version): • Medical Expert: applies diagnostic, therapeutic, preventive repertoire (1.2) • Communicator: creates effective therapeutic relationships (2.1), reports adequately on a case, orally and in writing (2.4) • Collaborator: consults others effectively (3.1) • Scholar: appraises medical information critically (4.1) • Health Advocate: recognises determinants of disease (5.1) • Manager: works effectively within a system (6.2) • Professional: adequate (inter-)professional conduct (7.2), discerns limits of competence (7.3)
Required knowledge, skills, and attitudes (level of doctor in postgraduate year 1)	*<u>Knowledge</u>* • Knowledge of normal ranges for blood pressure, heart rate, respiratory rate, saturation and temperature; • Knowledge of relevant criteria and scores (e.g. Crusade, Heartscore, TIMI, CHADS2VASC, SIRS-criteria, hypovolemic shock classification, NYHA classification); • Knowledge of different types of shock and their treatments; • Knowledge of levels of care on different wards (normal ward to ICU); • Knowledge of (results of) relevant diagnostic tests (i.e. laboratory blood tests, blood gas analysis, chest X-ray and systematic interpretation, ECG); • Knowledge of intravenous fluid therapy protocols; • Knowledge of most important disorders leading to circulatory insufficiency (i.e. different types of shock); • Knowledge of indications for echocardiography and of relevant reported findings; • Knowledge of indications for cardiac catheterisation (and percutaneous cardiac intervention) and of relevant reported findings; • Knowledge of initial (pharmacological) treatment of different types of shock. Inotropes and vasoactive medications.

	Skills • Performs and interprets a systematic physical exam according to 'ABCD' and monitoring of vital signs; • Asks timely for help/supervision; • Takes a focused history and performs a focused physical exam in patients with circulatory insufficiency; • Performs a blood gas analysis; • Interprets result of a blood gas analysis; • Connects patient to monitoring such as ECG/telemetry, non-invasive blood pressure, pulse oximetry, and interprets findings; • Evaluates heart rhythm on telemetry monitor; • Interprets 12-lead ECG : myocardial ischemia, rhythm- and conduction disorders; • Writes an order for chest X-ray; • Systematic interpretation of chest X-ray and recognition of relevant radiologic findings; • Sites a peripheral intravenous catheter; • Drafts and ranks a differential diagnosis and provides a probable diagnosis in a patient with circulatory insufficiency; • Proposes a management plan; • Proposes orders regarding treatment; • Reports in medical record and provides a structured handover. *Attitudes* • Discerns and acknowledges personal limits of knowledge, skill and capability and can adequately reflect on this; • Is set to short cycles of assessment, treatment, and re-assessment; • Reveals professional role and level; • Collaborates with ward staff; • Professional conduct towards patient and/or relatives; • Uses Evidence Based Medicine.
Information to assess progress	*Workplace assessment* • Mini-CEXs with regard to the evaluation of patients with or without vital instability, including indicating necessity for (acute) intervention and with regard to discernment of personal limits of capability; • Multisource feedback: performance as a team member in urgent and non-urgent settings; *Assessment of knowledge, skills and attitudes* • Knowledge examination (written, variety of formats); • Clinical reasoning and know-how (case-based discussions); • Demonstration of isolated skills in non-clinical setting (Objective Structured Examination of Clinical Skills); • Reflection forms regarding performance, difficult moments, discernment of limitations. *Assessment of clinical performance* • Simulation of acute care settings.
Target level of supervision (entrustment)	Indirect supervision (immediately available): evaluation and initial management, awaiting arrival of help/supervisor
When is unsupervised practice expected?	At the end of DTY Acute Care