Supplement 3| Review Questions - PICO Format

Key question 1.1.

Population	Chronic kidney disease (CKD) stage 5, CKD G5, Dialysis, Hemodialysis (HD), Renal replacement therapy (RRT), End-stage renal disease (ESRD), End-stage kidney disease (ESKD), End-stage kidney failure (ESKF)
Intervention	Early start of dialysis (eGFR >10), Early start of dialysis (moderate symptoms)
Comparator	Late start of dialysis (eGFR ≤10), Late start of dialysis (severe symptoms)
Outcome	Primary: mortality, hospitalization, quality of life, healthcare resource spent Secondary: wellbeing, cognitive dysfunction, infection, vascular access problem

Key question 1.2.

Population	Dialysis, hemodialysis (HD), renal replacement therapy (RRT), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF), Chronic kidney disease stage V
Intervention	AVF formation at eGFR 15
Comparator	Observation
Outcome	Infection, maturation failure rate, patient survival

Key question 2.1.

Population	Dialysis, hemodialysis (HD), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)
Intervention	Dialysis dose, frequency, time, duration (3 times a week, 3-5 hours/session)
Comparator	Dialysis dose, frequency, time, duration (2 times a week, <3 hours/session)
Outcome	Maintenance of dialysis adequacy, efficiency of dialysis treatment, survival rates for dialysis patients, socioeconomic cost of dialysis treatment, quality of life in dialysis patients

Key question 2.2.

Population	Dialysis, hemodialysis (HD), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)
Intervention	Kt/V, dialyzer clearance of urea, dialysis adequacy, hemodialysis kinetics (Kt/V ≥ 1.3)
Comparator	Kt/V, dialyzer clearance of urea, dialysis adequacy, hemodialysis kinetics (Kt/V ≥ 1.2)
Outcome	Maintenance of dialysis adequacy, efficiency of dialysis treatment, survival rates for dialysis patients, socioeconomic cost of dialysis treatment, quality of life in dialysis patients

Key question 3.1.

Population	Hemodialysis OR dialysis OR HD
Intervention	Hemodiafiltration OR high-flux dialyzer
Comparator	Low-flux membrane OR low-flux dialyzer
Outcome	All-cause mortality, cardiovascular disease mortality

Key question 3.2.

Population	Hemodialysis OR dialysis OR HD

Intervention	Hemodiafiltration
Comparator	High flux
Outcome	Mortality, cardiovascular mortality, nonfatal cardiovascular events, health-related quality of life

Key question 4.1.

Population	Hemodialysis (HD), End-stage renal disease (ESRD), End-stage kidney failure (ESKF), thrombocytopenia, postoperative hemorrhages, gastrointestinal hemorrhage, intracranial hemorrhages, bleeding, hemorrhage
Intervention	Low molecular weight heparin
Comparator	Unfractionated heparin
Outcome	Bleeding complication, thromboembolic event (including circuit thrombosis)

Key question 4.2.

Population	Hemodialysis (HD), End-stage renal disease (ESRD), End-stage kidney failure (ESKF), thrombocytopenia, postoperative hemorrhages, gastrointestinal hemorrhage, intracranial hemorrhages, bleeding, hemorrhage
Intervention	Nafamostat
Comparator	Heparin-free OR no anticoagulation
Outcome	Bleeding complication, Thromboembolic event (including circuit thrombosis)

Key question 5.1.

Population	Dialysis, hemodialysis (HD), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)
Intervention	Control of interdialytic weight gain (IDWG), dry weight (DW), body weight, fluid balance, volume control, ultrafiltration (UF), ultrafiltration rate (UFR), weight gain, thirst, xerostomia, dialysate
Comparator	No control of IDWG
Outcome	Overall survival, all-cause mortality, cardiovascular mortality, intradialytic hypotension (IDH)

Key question 5.2.

Population	Dialysis, hemodialysis (HD), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)
Intervention	Low sodium dialysate (134-138)
Comparator	Standard sodium dialysate (138-140)
Outcome	CHF hospitalization, interdialytic weight gain

Key question 6.1.

Population	Dialysis, hemodialysis (HD), renal replacement therapy (RRT), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)
Intervention	Predialysis systolic blood pressure (<140mmHg)
Comparator	Predialysis systolic blood pressure (≥140mmHg)
Outcome	Overall mortality, cardiovascular mortality, cardiovascular disease incidence

Key question 6.2.

Population	Dialysis, hemodialysis (HD), renal replacement therapy (RRT), end-stage renal disease (ESRD), end-stage kidney disease (ESKD), end-stage kidney failure (ESKF)

Intervention	Low dialysate temperature (≤36 ℃)
Comparator	Standard dialysate temperature (>36 ℃)
Outcome	Intradialytic hypotension

Key question 7.1.

Population	Hemodialysis patients
Intervention	Adequacy, Kt/V, hemodialysis dose, measurement of dialysis, blood sampling
Comparator	Inspection items and inspection interval: comparison with existing adequacy evaluation
Outcome	Maintenance of dialysis adequacy, survival rates for dialysis patients, socioeconomic cost of dialysis treatment, quality of life in dialysis patients

Key question 8.1.

Population	“ESRD or end-stage renal failure or stage-5 CKD or advanced CKD or CKD4 or CKD5” and “dialysis or renal replacement therapy or hemodialysis”
Intervention	Hemodialysis
Comparator	“nondialytic or conservative treatment or palliative care or conservative management” or “end of life care or palliative care”
Outcome	Survival rate, quality of life

Key question 8.2.

Population	"End-stage renal disease or End-stage kidney disease or end-stage kidney failure or end-stage renal failure" AND "dialysis or hemodialysis or renal replacement therapy" AND "child or children or pediatric"
Intervention	Nurse or nursing (nurse: patient ratio less than 1:5)
Comparator	Nurse or nursing (nurse: patient Ratio 1:5)
Outcome	Survival rate