## List of Survey Items (2000-2017)

surveys were perfomed only by electric media from 2015 (paper media survey was abolished from 2015)

• survey items by both paper and electronic media

O survey items only by electronic media

			U	su	rve	/ It	ems	s or	пу і	bу	ele	ctr	onic	; m	eala	3				
Facility S	urvey		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
infection	hepatitis	zoning for viral hepatitis-related patients (y/n)								•										
control	infection control	hospital/clinic infection control committee (y/n)								•										
number of	number of																			
workers	workers involved	doctors, nurses, clinical engineers, nutritionists,		•		•				•				•						
involved in	in dialysis	case workers, others				•			•	•				•		•	•			
dialysis	treatment																		_	
		number of bedside consoles equipped with							•	•	•	•		•	•	•				
		endotoxin retentive filter (ETRF)							•	Ū				•	•		•			•
	endotoxin (ET)	sampling site of dialysis fluid							•	•	•	ullet	ullet	•	ullet	•	ullet	●	ullet	
		use of ETRFs at sampling (y/n)							•	•	ullet	ullet	ullet	•	ullet	•	ullet	●	ullet	
		frequency of measuring ET							•	•	ullet	ullet	ullet	ullet	ullet	•	$\bullet$	ullet	ullet	•
		ET concentration (EU/mL)							ullet	•	ullet	ullet	ullet	ullet	ullet	ullet	ullet	●	ullet	•
		Frequency of measuring total viable microbial																		
dialysis fluid	total viable	count (TVC) in dialysis fluid							•	•	•			•	•	•	•			
quality	microbial count	TVC (cfu/mL)							•	•	ullet	ullet	ullet	•	ullet	•	ullet	ullet	$\bullet$	•
management	(TVC)	cultivation medium for TVC							•	•		•		•	•		ullet			
		sampling volume for TVC(mL)								•		ullet		ullet	ullet	$\bullet$	$\bullet$			
		source of dialysis water																		•
	manegement for	frequency of testing residual chlorine before																		•
	chemical	method for testing residual chlorine																		•
	pollution	recognition about the JSDT standard for																		
	poliution	chemical contaminations of dialysis fluids																		
		frequency of measurement of chemical water quality																		•

Patient	Survey

Patient S	urvey		00	01	02	03	04	05 0	6 0	7 08	8 09	10	11	12	13	14	15	16	17
		dialysis modality																	
		(HD/HDF/HF/Hemoperfusion/Home HD/PD)				•											0		
		combination therapy of HD(F) and PD (y/n)										ullet	ullet	lacksquare	ullet	ullet	0	0	0
		duration of present PD treatment (year)										$\bullet$	•						
	treatment	duration of present PD treatment (month)												0	0	0	0	0	0
	modality, HDF	history of PD treatment (y/n)											•	ullet	-	-	0	-	0
		number of past renal transplantations												lacksquare			0		0
		dilution mode of HDF (pre-/post-)												lacksquare			0		
		substitution fluid volume per HDF session (L)												lacksquare	ullet	ullet	0	0	0
		reason for providing HDF													0				
		frequency of dialysis session per week	_	•		●	•					$\bullet$	ullet	lacksquare	ullet	ullet	0	0	0
manegement	dialysis time	dialysis time per session (min)	•	•		●	•					$\bullet$	ullet	ullet	ullet	ullet	0	0	0
of dialysis	and frequency	day of week on dialysis			ullet														
	and frequency	dialysis time on each day of week			ullet														
		the day of week when blood test was done			•														
	dialysis	dialyzer membrane material	$\bullet$		0						)	•							0
	membrane	surface area of dialyzer membrane (m <sup>2</sup> )	ullet		0						)	ullet							0
	blood flow rate	blood flow rate (mL/min)			•						)			ullet	ullet	ullet	0	0	0
		calcium concentration of dialysis fluid (mEq/L)				●	0												
	dialysis fluid	dialysis fluid flow rate (mL/min)			0						)								
		name of dialysis fluid			0						)								
	anticoagulant	anticoagulants for dialysis				●													
	anticoaguant	total amount of anticoagulant per session				0													
	blood access	vascular access at the end of the year								С	)								0

Patient S	urvey																14		
	physical data	body height (cm)	0	0	lacksquare	ullet	lacksquare	0	ullet	•	ullet	lacksquare	•	ullet	lacksquare		•	ЭC	С
	physical data	pre- and post-dialysis body weight (kg)	•	•	•	ullet	ullet	ullet	•	•	ullet	ullet	•	ullet	ullet	●	•	20	С
		pre- and post-dialysis serum urea nitrogen															•		2
		(UN) concentration (mg/dL)									•						•		ر ار
		pre- and post-dialysis serum creatinine							-										)
		concentration (mg/dL)	•	•	•	•		0	•	•	•	•	•		•	•	•		ر
	uremic toxin	pre-dialysis serum beta <sub>2</sub> -microgloblin																-	
		concentration (mg/L)									•		•						
		post-dialysis serum beta <sub>2</sub> -microgloblin											-		-	-	-	+	-
											0		•						
		concentration (mg/L) pre-dialysis serum uric acid concentration (mg/dL)											-		-		-	+	
	uric acid		-															-	
		use of drug for hyperuricemia (y/n)											$\neg$		$\dashv$	$\rightarrow$	+	+	
		history of gout attack (y/n)						~	-			-						╧	_
	protein	pre-dialysis serum albumin concentration (g/dL)	0	0	•	•	•	0	•	•		•	-	-	•	-	•	4	<u>ר</u>
		post-dialysis serum albumin concentration (g/dL)									0		$\square$	⊢–	$ \rightarrow $			+	
	sodium	pre- and post-dialysis serum sodium concentration (mEq/L)									•		_	⊢	$\square$		_	_	
	potassium	pre- and post-dialysis serum potassium concentration (mEq/L)									•						_	$\perp$	
	chloride	pre- and post-dialysis serum chloride concentration (mEq/L)									0								
patient	magnesium	pre-dialysis serum magnesium concentration (mg/dL)										●		1					
•		pre-dialysis serum total cholesterol concentration (mg/dL)	0											ullet	0	0	0	0	S
status		pre-dialysis serum HDL-cholesterol				_							_						_
		concentration (mg/dL)	0											$\bullet$	0	0	0	SIC	5
	lipid	pre-dialysis serum tryglyceride concentration (mg/dL)				•							-		-			-	
		use of drug for hyperlipidemia (y/n)												•			-	-	
		time between preceding meal and blood sampling (hr)											-		-		-		
_			0			-							_		-	0	—	+	_
		pre-dialysis HbA1c (%)	Ρ										_		_		—	+	
		pre-dialysis glycoalbumin (%)											_		$\dashv$	0	_	+	
	diabetes	use of insulin (y/n)												⊢−−	$\dashv$	0	_	+	
		use of DPP-4 inhibitor (y/n)											$\square$	⊢–		0		$\rightarrow$	
		use of the other prescription drug for diabetes (y/n)											_	⊢	$\square$	0	_	_	
		history of diabetes (y/n)												$\bullet$			•	S	C
		pre-dialysis serum pH	0								0								
	acid-base	post-dialysis serum pH									0								
	balance	pre-dialysis serum $HCO_3^-$ concntration (mg/dL)					0												
		post-dialysis serum HCO <sub>3</sub> <sup>-</sup> concentration (mg/dL)									0							+	
		pre-dialysis serum C-reactive protein (CRP)									-						-		
	inflammation					•	ullet	0		•	•	•	•	ullet	$\bullet$	$\bullet$	•	S	С
	dialvaia	concentration (mg/dL) surgical history for carpal tunnel syndrome							_				-		-		-	-	
	dialysis amvloidosis												•	ullet					
	liver function	/y/n) pre-dialysis serum ALT (IU/L)	0										-				-		
		HBsAb	0						•				-						
			-	0					_								_		
	honotitio viruo	HBsAg	0						•	•			$\rightarrow$		$\rightarrow$		—	+	
hepatitis	hapatitis virus	past history of Hepatitis B vaccination (y/n)	0	0									$\neg$		_			+	
	marker	HBsAg/HBsAb	0			_			_				$\square$	⊢−−	$ \rightarrow$	_	_	_	
		HCVAb	0	0	•	•			•	•				⊢	$\square$			$\perp$	
		HCV-RNA			•	•			•	•							_	$\perp$	
	HCC/LC	history of hepatocellular carcinoma (HCC) / liver cirrhosis (LC) (y/n)	0	_															
smoking	smoking habit	present smoking habit (y/n)		0										ullet	lacksquare	ullet	•	S	C
SHIOKING	Shoking habit	number of cigarretts per day	0	0															
	insurance of	status of having the elderly care insurance																	
surance of	the elderly	status of using the elderly care insurance	1		•											1	$\uparrow$	$\top$	_
	rehabilitation in		t		-								$\neg$		$\neg$	$\uparrow$	+	+	
the elderly	society	social rehabilitation status																	
care and	physical	performance status			ullet							ullet	ullet	$\lfloor 1$	_1				
activity		presence of dementia (y/n)										ullet	ullet					Τ	_
	activity	main residence	1									ullet	ullet			1	$\uparrow$	$\top$	
		history of hospitalization in a year (y/n)	İ	1		İ							1		1	+	$\uparrow$	$\uparrow$	-
ospitalization	hospitalization	reason for hospitalization	1	1	1	<u> </u>				-			-	$ \longrightarrow $	$\rightarrow$	$\rightarrow$	+	+	_

Patient Su	urvey		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
	skin itchiness	presence of skin itchiness (y/n)	•																	
		history of myocardial infarction (2007-ischemic	0	0	0	•	•	•	•	•		•		•	ullet		•	0	0	0
		heart disease) (y/n)	_	_	_	_	_											_	_	
		history of brain hemorrhage (y/n)	0			•	•	•	•	•	•	•	•	•	•	•		0		
		history of brain infarction (y/n)	0	_	_	•	•	•	•	•	•	•	•	•	•			0		
		presence of limb amputation (y/n)	0	0	1	•	•	•	•	•	•	•	•	•	•	•	•	0	0	0
		history of bypass surgery for peripheral aratery disease (PAD) (y/n)	0																	
		history of artificial blood vessel replacement																		
cardiovascular	aardiovaaaular	surgery (y/n)	0																	
disease	cardiovascular disease	history of blood vessel baloon dilatation (y/n)	0																	
	disease	history of stent graft implantation to peripheral	0																	
		artery (y/n)													$\vdash$			_		
		history of coronary artery bypass graft	0	0																
		operation (CABG) (y/n)	Ľ															$\square$		
		history of percutaneous transluminal coronary	0	0																
		angioplasty (PTCA) (y/n)																		
		history of coronary artery stenting (y/n)	0	0																
		blindness due to diabetic retinopathy or retinal	0	0																
		circulatory disorder (y/n)	Ŭ	Ŭ																
		pre-dialysis blood pressure (systolic/diastolic) (mmHg)	0	•				•							ullet	•	ullet	0	0	0
		pre-dialysis pulse rate (beat/min)						•								lacksquare	ullet	0	0	0
		post-dialysis blood pressure (systolic/diastolic) (mmHg)	0					•												
		post-dialysis pulse rate (beat/min)		-				•											_	
	blood pressure	lowest blood pressure during dialysis session (mmHg)												_						
			-					-						_				$\rightarrow$	_	
		pulse rate at lowest blood pressure during						•												
		dialysis session (beat/min)																_		
		history of hypertension (y/n)												-						
		vasopressor before or during dialysis session (y/n)													$\vdash$			_	_	
blood		treatment method for hypotension			1			_							$\vdash$			_		
blood		use of oral vasopressor agent (y/n)						•							$\vdash$			_		
pressure	hypotension	infusion of saline (y/n)						•												
	therapy	use of high concentration NaCl (y/n)						•												
		use of high concentration glycerin (y/n)						•												
		low temperature dialysis (y/n)						•												
		use of intravenous vasopressor agent (y/n)						•												
		use of antihypertensive agent (y/n)		•																
		use of oral antihypertensive agent (y/n)	0													•	•	0	0	0
	antihypertensiy	calcium antagonist (y/n)	-					•								-	-	_		
	e agent	angiotensin coverting enzyme (ACE) inhibitor (y/n)												_				_		
	cugent	angiotensin II receptor blocker (ARB) (y/n)												_				-		
																		$\neg$	_	
		the other antihypertensive agents (y/n)						•			_	_		_						
		pre-dialysis serum calcium concentration (mg/dL)	-			•	•		•	•	0	•	•	-	-	•	•	0	-	0
		post-dialysis serum calcium concentration (mg/dL)																0		
		pre-dialysis serum phosphate concentration (mg/dL)				-	-			•		-	•	-	-		•	4	$\overline{}$	<u> </u>
		post-dialysis serum phosphate concentration									0									
		(mg/dL) nra dialysis serum alkalina phosphatasa (ALP)	+			-									$\square$			$\dashv$	$\dashv$	
		pre-dialysis serum alkaline phosphatase (ALP)										•								
CKD-MBD	CKD-MBD	concentration	+	-	+	-								_	$\square$			$\dashv$	$\dashv$	
		pre-dialysis serum intact parathyroid hormone				$\bullet$	ullet		ullet	•		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
		(PTH) concentration (pg/mL)	+	-	+	-	-							_	$\square$			$\dashv$	$\dashv$	
		method/value for serum PTH concentration										•								
		(intact-, whole-, HS-) (pg/mL)	-	-	-		-								$\vdash$			$\dashv$	$ \rightarrow $	
		method/value for serum PTH concentration											$\bullet$	ullet	ullet	•	ullet	0	0	0
		(intact-, whole-) (pg/mL)																		

Patient Su	urvey		00	01	02	03 04	1 05	06	07	08	09	10	11	12	13 1	4 15	i 16	17
		use of sevelamer hydrochloride (y/n)	Γ	Г	Π						•			Т		Т		Γ
		dose of sevelamer hydrochloride (mg/day)																
	phosphate	use of alminum hydroxide (y/n)																
	binder	use of calcium carbonate (y/n)	0	1							lacksquare							
	binder	dose of carcium carbonate (g/day)	0	1														
		use of lanthanum carbonate hydrate (y/n)									ullet							
		use of the other phosphate binders (y/n)									ullet							
		current PD treatment (y/n)	0	,														
		use of vitamin D receptor activator (VDRA) (y/n)	0	,														
		dose of VDRA (µg/day)									ullet							
CKD-MBD	vitamin D	use of oral VDRA (y/n)																
		dose of oral VDRA (μg/day)									ullet							
		use of intravenous VDRA (y/n)					)											
		dose of intravenous VDRA (μg/day)									ullet							
	cinacalcet	use of cinacalcet hydrochloride (y/n)				•												
·		history (number) of percutaneous ethanol		1										+				-
		injection therapy (PEIT) (y/n)																
	surgery	history of parathyroidectomy (PTX) (y/n)	-	-	$\square$									+				+
		history of PEIT (y/n)	-		$\square$				•		•			+	-			+
		history of proximal thighbone (Femur) fracture	+	+	$\square$				-		-			+	-	+		-
	bone fracture								•	ullet	ullet	$\bullet$	•	•			0	C
		(hip bone fracture until 2014) (y/n)	┢	0									—	+	+	+-		-
	Hct/Hb	pre-dialysis hematocrit (%)	_		P													
		pre-dialysis hemoglobin (Hb) concentration (g/dL)		+	$\vdash$				•		•	•	-	4	-			
		post-dialysis hemoglobin (Hb) concentration (g/dL)	+	+	$\vdash$					0			<u> </u>	$\pm$	+	+		-
	iron metabolism anemia	pre-dialysis serum iron concentration (µg/dL)	_	_	$\square$		-	•						0	_	_		+
anemia		pre-dialysis serum total iron-binding capacity (µg/dL)	╞	_	$\square$		_	•						0	$\perp$	_		_
		pre-dialysis serum ferritin concentration	_	<u> </u>			0	$\bullet$	•				(	0	$\perp$	_		_
		use of erythropoiesis stimulating agents (ESA)	0	0	0									$\downarrow$		_		_
	anemia	type of ESA												0				
	treatment	dose of ESA		0	0		0						(	0				
		use of anabolic steroids (y/n)	0	)	Щ													
		current PD treatment (y/n)																
		the month of initiating PD therapy					•											
		number of days performing PD in a week					•											
		type of CAPD treatment																
		number of months performing PD in a year											(	0	00	> 0	0	С
		undergoing peritoneal equilibration test (PET) (y/n)	)										0	0	00	> 0	0	С
		four-hour creatinine concentration					_	_				_	_		_		_	
		dialysate/plasma ratio in PET (PET Cr D/P										0	0	Эl	0	၂၀	0	C
		type of PD fluid	-	1	$\square$		•	)				0	0				0	C
		total volume of PD fluid per day (L/day)	-	1	$\square$			)								_	-	_
	f c t t r	residual kidney function (urine volume per day)	+	+			-											
peritoneal		(mL/day)										0	0	0	olc	$\circ$	0	C
dialysis	peritoneal		+	+	$\vdash$													
-	dialysis (PD)	mean ultrafiltration (UF) volume per day (mL/day)	·	+	+		•	'										
(PD)	dialysis (PD)	KT/V by residual kidney (residual kidney Kt/V)	+-	+	$\vdash$		-											
		Kt/V by PD (PD KT/V)	+	+	$\vdash$							0		4	4	10		
		use of automated peritoneal dialysis (APD)											(	0	olc	blo	0	C
		machine (y/n)		_	$\square$													
		time of PD treatment per day (hr)	$\bot$	$\perp$	$\square$										00			
		changing maneuver of PD fluids		$\perp$	$\square$										00			
		history (number) of peritonitis in a year			$\square$		•					0			00			
		history (number) of exit-site infections in a year											(	0	00	> 0	0	С
		history of encapsulating peritoneal sclerosis			$ \top$							$\Box$						
		(EPS) (y/n)						1					•	•		10	0	ľ
			+	+	+		+	+						+	+	+	1	+
		month of withdrawal from PD																

Survey for	incident pa	tients	00	01	02	03 0	4 05	06	07	08 0	9 10	11 1	2 1	3 14	15	16	17
		the year of first visit to the incident dialysis hospital						0	0		Γ		Ι	Γ			
		the month of first visit to the incident dialysis hospital						0	0							_	
		pre-dialysis body weight in the first dialysis session (kg)						0	0								
		pre-dialysis serum urea nitrogen in the first dialysis						~	0						Π		
		session (mg/dL)						0	0								
		pre-dialysis serum creatinine in the first dialysis session (mg/dL)						0	0								
		method for measuring pre-dialysis serum creatinine							_								
		in the first dialysis session						0	0								
	clinical	pre-dialysis serum albumin in the first dialysis session (g/dL)						0	0							_	
	findings at	pre-dialysis serum CRP in the first dialysis session (mg/dL)						0	0								
	the first	pre-dialysis hemoglobin in the first dialysis session (g/dL)						0	0							-	
	dialysis	pre-dialysis serum calcium in the first dialysis session (mg/dL)						0	0							-	
	session	pre-dialysis serum phosphate in the first dialysis session (mg/dL)						0	0							-	
	56551011	pre-dialysis serum $HCO_3^-$ in the first dialysis session (mg/dL)						0								-	
		pre-dialysis setain rices in the inst dialysis session (hig/de)														-	
		dialysis session (mmHg)						0	0								
		pre-dialysis diastolic blood pressure in the first															
		dialysis session (mmHg)						0	0								
		the year of the first vascular access operation	0		$\neg$		+	0	0				+	+	⊢	+	
		the month of the first vascular access operation	0					0	0						-	-	
		type of the first vascular access	0				+	0	0		-	$\vdash$		+	⊢┦	+	
							-	0	0		-					-	_
		history of myocardial infarction (y/n)					-	0	0						$\vdash$	+	_
		history of cogestive heart disease (y/n)					-				-				$\vdash$	+	
		history of limb (major) amputation, arteriosclerosis						0	0								
		obliterans (ASO), or aortic aneurysm 6cm<= (y/n)					_		_		-				$\vdash$	$\rightarrow$	
		history of cerebral infarction and/or TIA (y/n)					-	0	0		_				$\vdash$	_	
		dementia (y/n)						0	0		_			_		_	
survey at the		chronic lung disease (y/n)						0	0		_			_	$\square$	$ \rightarrow$	
first dialysis		collagen disease (y/n)						0	0						$\square$	$\rightarrow$	
session		peptic ulcer (y/n)							0		_				$\square$	$\rightarrow$	
	·	chronic liver disease without portal hypertension						0	0								
		and/or chronic hepatitis (y/n)						_							$\square$	_	
	dialysis	diabetes (without organ failure, excluding only diet patients) (y/n)						0	0						$\square$	$\downarrow$	
	session	hemiplegia (y/n)						0	0								
		diabetes(advanced retinopathy, neuropathy, and						0	0								
		Brittle type DM) (y/n)															
		malignant tumor (without metastasis, excluding						0	0								
		patients over 5 years after diagnosis) (y/n)							0								
		leukemia (acute, chronic) (y/n)						0	0								
		lymphoma (y/n)						0	0								
		moderate/advanced liver disease (y/n)						0	0						$\square$		
		metastatic malignant tumor (y/n)						0	0						Π	$\neg$	
		AIDS (y/n)						0	0								
		hypervolemia (systemic edema, advanced						_						$\top$	$\square$	$\neg$	-
		hypoproteinemia, and/or lung edema) (y/n)						0	0								
		abnormal body fluid (uncontrol electrolyte, abnormal					+	$\uparrow$			-		+	$\top$	$\vdash$	+	-
		acid-base balance) (y/n)						0	0								
		digestive symptom (nausea, vomiting, appetite loss,					-	-			+			+	$\vdash$	+	
		diarrhea, etc.) (y/n)						0	0								
	symptoms	cardiovascular symptom (advanced hypertension,					+	+			+		+	+	$\vdash$	+	
	at the first	heart failure, pericarditis) (y/n)						0	0								
	dialysis	neurological symptom (central/peripheral nerve	⊢			-	+	+			+	$\vdash$	+	+	$\vdash$	+	
	session	disorder, mental disorder) (y/n)						0	0								
		blood abnormality (advanced anemia symptom,					+	+			+	$\vdash$	+	+	$\vdash$	+	
								0	0								
		bleeding tendency) (y/n)					-	$\vdash$				$\vdash$		+	$\vdash$	+	_
		visual disturbance (uremic retinopathy, diabetic						0	0								
		retinopathy) (y/n)						-			+				$\vdash$	$\dashv$	
		accident value of activity of daily life (ADL) 5/5						0	0						Ш		