

**Supplementary Table 1. Components of hemodialysis quality assessment**

Domain	Category	HD quality assessment (12 measures)	Equation
Structural	Personnel	(1) Percent of doctors specialized in HD	$[\Sigma (\text{employed days of each doctor specialized in HD}) / \Sigma (\text{employed days of each doctor})] \times 100$
		(2) Percent of nurses with $\geq 2$ -year experience in HD	$[\Sigma (\text{employed days of each nurse with } \geq 2 \text{ years experience in HD}) / \Sigma (\text{employed days of each nurse})] \times 100$
		(3) Number of HD performed per doctor per day	Total number of HD / $\Sigma$ (working days of each doctor)
		(4) Number of HD performed per nurse per day	Total number of HD / $\Sigma$ (working days of each nurse)
	Equipment	(5) Satisfaction of the minimum required number of isolated HD equipment for hepatitis B patients	Minimum required number of isolated HD equipment = number of hepatitis B patients / [(3 $\times$ days of nocturnal HD) + (2 $\times$ days of day-time HD)] / 3
		(6) Availability of emergency equipment in HD unit	Emergency equipment: oxygen supply, suction, Endotracheal intubation kit, electrocardiogram, defibrillator
	Facilities	(7) Satisfaction with the minimum required frequency of water quality tests	Minimum required frequency of tests <ul style="list-style-type: none"> <li>· Bacteriological assay: monthly, 1/12 of total HD equipments</li> <li>· Endotoxin assay: every 3 months</li> <li>· Chemical assay: annually</li> </ul>
Procedural	HD adequacy	(8) Satisfaction rate of the minimum required frequency of HD adequacy test	(Number of patients satisfied with minimum required frequency of HD adequacy test / total number of ambulatory HD patients) $\times$ 100 <ul style="list-style-type: none"> <li>· Minimum frequency: every 3 months</li> </ul>
	Vascular access	(9) Satisfaction rate of the minimum requirement for vascular access stenosis monitoring	(Number of patients satisfied with minimum required frequency of vascular access stenosis monitoring / total number of ambulatory HD patients) $\times$ 100 <ul style="list-style-type: none"> <li>· Monitoring methods</li> <li>· Monthly: static intra-access pressure ratio, ultrasound dilution technique, duplex ultrasonography, angiography</li> <li>· Weekly: physical exam of vascular access</li> </ul>
	Regular tests	(10) Satisfaction rate of the required frequency of regular laboratory tests	(Number of patients satisfied with minimum required frequency of regular laboratory tests / total number of ambulatory HD patients) $\times$ 100
Monitoring	spKt/V	(11) Satisfaction rate of HD adequacy	(Number of patients satisfied with HD adequacy / total number of HD patients tested for HD adequacy) $\times$ 100 <ul style="list-style-type: none"> <li>· HD adequacy: spKt/V <math>\geq</math> 1.2 or URR <math>\geq</math> 65%</li> </ul>
	Mineral bone disorder	(12) Satisfaction rate of calcium $\times$ phosphorus	[(The number of patients with calcium $\times$ phosphorus < 55) / total number of HD patients tested for calcium and phosphorus during assessment period] $\times$ 100

HD, hemodialysis; spKt/V, single-pool Kt/V; URR, urea reduction ratio;  $\Sigma$ , sum.