

Supplemental Material

Supplemental Item 1. Survey items from the 2018 Global Kidney Health Atlas relating to Conservative Kidney Management (conservative kidney management).

Supplemental Table 1. Availability of kidney replacement therapies, and funding sources, among countries offering conservative kidney management.

Supplemental Table 2. Number of quality indicators of conservative kidney management delivery reported overall and by country income level.

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C6. Conservative care

Conservative (non-dialytic) kidney care: Comprehensive conservative care is defined as planned, holistic, patient-centred care for patients with CKD stage 5, according to *Kidney Disease: Improving Global Outcomes (KDIGO)*. ***This is appropriate for patients who choose not to initiate RRT or in whom resource constraints prevent or limit access to RRT.***

We would like to know more about the capacity to deliver conservative care in your country (that is, capacity to support/manage patients who will not receive RRT despite being in kidney failure). The goals of conservative care are usually to optimize quality of life, manage symptoms of kidney failure, and when appropriate, preserve residual renal function in patients with advanced CKD (CKD stage 5).

C6.1. Considering the definition above, is conservative care available in your country?

- Yes
- No
- Unknown

C6.2 Please indicate the availability of a system for conservative care (holistic patient-centred care for patients with CKD stage 5) that includes all or any of the following:

'Generally available' means: in 50% or more centres (hospitals or clinics) and 'Generally not available' means: in less than 50% of centres (hospitals or clinics).

If conservative care is NOT available in your country, select N/A.

	Generally available	Generally not available	Never	Unknown	N/A
C6.2.1 Established choice-restricted conservative care (conservative care for patients in whom resource constraints prevent or limit access to RRT)					
C6.2.2 Established conservative care that is chosen or medically advised (conservative care program for patients who opted not to have dialysis, where it is readily available)					
C6.2.3 Multidisciplinary team approach to care via shared decision making					
C6.2.4 Shared decision-making tools for patients and providers; for example, practice guidelines for providers, patient decision aids					
C6.2.5 Systematic active recognition and management of symptoms associated with advanced kidney failure					
C6.2.6 Systematic provision of psychological, cultural, and spiritual support					
C6.2.7 Systematic provision to care providers of additional training in conservative care					
C6.2.8 Easy access to conservative care across settings (for example, home, hospital, hospice, and nursing home)					

Supplemental Table 1. Availability of kidney replacement therapies, and funding sources, among countries offering conservative kidney management.

ISN Region	Country	World Bank income group	Hemodialysis	Peritoneal Dialysis	Kidney Transplantation	KRT Funding
Africa	Algeria	Upper-middle	✓	✓	✓	Govt (no fees)
	Angola	Upper-middle	✓	✓	X	Govt (no fees)
	Benin	Low	✓	✓	X	Govt (no fees)
	Burkina Faso	Low	✓	X	X	Govt (some fees)
	Burundi	Low	✓	X	X	Mix (govt + private)
	Cabo Verde	Lower-middle	✓	X	X	Govt (no fees)
	Cameroon	Lower-middle	✓	X	X	Govt (some fees)
	Chad	Low	✓	X	X	Govt (no fees)
	Congo, Dem. Rep.	Low	✓	✓	X	Mix (govt + private)
	Congo, Rep.	Lower-middle	✓	✓	X	Govt (no fees)
	Cote d'Ivoire	Lower-middle	✓	✓	✓	Mix (govt + private)

Egypt, Arab Rep.	Lower-middle	✓	✓	✓	Govt (no fees)
Eritrea	Low	✓	X	X	Govt (some fees)
Gabon	Upper-middle	✓	X	X	Govt (some fees)
Gambia, The	Low	✓	X	X	Govt (no fees)
Ghana	Lower-middle	✓	X	✓	Mix (govt + private)
Guinea	Low	✓	X	X	Govt (no fees)
Kenya	Lower-middle	✓	✓	✓	Govt (some fees)
Liberia	Low	✓	X	X	Unknown
Libya	Upper-middle	✓	✓	✓	Mix (govt + private)
Madagascar	Low	✓	X	X	Private (OOP)
Malawi	Low	✓	✓	X	Govt (no fees)
Morocco	Lower-middle	✓	✓	✓	Multiple
Mozambique	Low	✓	✓	X	Govt (some fees)
Namibia	Upper-middle	✓	X	✓	Mix (govt + private)
Niger	Low	✓	X	X	Govt (some fees)

	Nigeria	Lower-middle	✓	X	✓	Private (OOP)
	Senegal	Lower-middle	✓	✓	X	Govt (some fees)
	Somalia	Low	✓	X	X	Private (OOP)
	South Africa	Upper-middle	✓	✓	✓	Mix (govt + private)
	Tunisia	Upper-middle	✓	✓	✓	Mix (govt + private)
	Uganda	Low	✓	X	X	Mix (govt + private)
	Zambia	Lower-middle	✓	✓	X	Govt (some fees)
E&C Europe	Albania	Upper-middle	✓	✓	✓	Mix (govt + private)
	Bosnia and Herzegovina	Upper-middle	✓	✓	✓	Mix (govt + private)
	Bulgaria	Upper-middle	✓	✓	✓	Govt (some fees)
	Croatia	High	✓	✓	✓	Govt (no fees)
	Cyprus	High	✓	✓	✓	Govt (no fees)
	Czech Republic	High	✓	✓	✓	Govt (no fees)
	Estonia	High	✓	✓	✓	Govt (no fees)
	Hungary	High	✓	✓	✓	Govt (no fees)

	Kosovo	Lower-middle	✓	✓	X	Govt (no fees)
	Latvia	High	✓	✓	✓	Govt (no fees)
	Macedonia, FYR	Upper-middle	✓	✓	✓	Govt (no fees)
	Moldova	Lower-middle	✓	✓	✓	Govt (no fees)
	Poland	High	✓	✓	✓	Govt (no fees)
	Romania	Upper-middle	✓	✓	✓	Govt (no fees)
	Serbia	Upper-middle	✓	✓	✓	Govt (no fees)
	Slovak Republic	High	✓	✓	✓	Other
	Slovenia	High	✓	✓	✓	Govt (no fees)
	Turkey	Upper-middle	✓	✓	✓	Govt (no fees)
Latin America	Argentina	High	✓	✓	✓	Mix (govt + private)
	British Virgin Islands	High	✓	X	X	Govt (no fees)
	Colombia	Upper-middle	✓	✓	✓	Multiple
	Cuba	Upper-middle	✓	✓	✓	Govt (no fees)

	Dominican Republic	Upper-middle	✓		✓	Govt (some fees)
	Haiti	Low	✓	X	✓	Private (OOP)
	Panama	Upper-middle	✓	✓	✓	Mix (govt + private)
	Paraguay	Upper-middle	✓	✓	✓	Mix (govt + private)
Middle East	Iran, Islamic Rep.	Upper-middle	✓	✓	✓	Govt (no fees)
	Iraq	Upper-middle	✓	✓	✓	Govt (no fees)
	Jordan	Upper-middle	✓	✓	✓	Govt (no fees)
	Kuwait	High	✓	✓	✓	Govt (no fees)
	Lebanon	Upper-middle	✓	✓	✓	Govt (no fees)
	Oman	High	✓	✓	✓	Govt (no fees)
	Qatar	High	✓	✓	✓	Govt (some fees)
	Saudi Arabia	High	✓	✓	✓	Govt (no fees)
	United Arab Emirates	High	✓	✓	✓	Govt (no fees)
NIS & Russia	Armenia	Lower-middle	✓	X	✓	Govt (some fees)

	Azerbaijan	Upper-middle	✓	✓	✓	Govt (no fees)
	Georgia	Lower-middle	✓	✓	✓	Govt (no fees)
	Tajikistan	Lower-middle	✓	X	✓	Other
NAC	Canada	High	✓	✓	✓	Govt (no fees)
	Cayman Islands	High	✓	✓	X	Mix (govt + private)
	Jamaica	Upper-middle	✓	✓	✓	Mix (govt + private)
	St. Lucia	Upper-middle	✓	X	X	Mix (govt + private)
	St. Vincent and the Grenadines	Upper-middle	✓	✓	X	Mix (govt + private)
	United States	High	✓	✓	✓	Mix (govt + private)
North and East Asia	China	Upper-middle	✓	✓	✓	Govt (some fees)
	Hong Kong SAR, China	High	✓	✓	✓	Mix (govt + private)
	Japan	High	✓	✓	✓	Govt (some fees)
	Korea, Rep.	High	✓	✓	✓	Govt (some fees)

	Macao SAR, China	High	✓	✓	✓	Govt (some fees)
	Mongolia	Upper-middle	✓	✓	✓	Govt (no fees)
	Taiwan, China	High	✓	✓	✓	Govt (some fees)
OSEA	Australia	High	✓	✓	✓	Govt (no fees)
	Brunei Darussalam	High	✓	✓	✓	Govt (no fees)
	Fiji	Upper-middle	✓	✓	X	Mix (govt + private)
	Indonesia	Lower-middle	✓	✓	✓	Govt (some fees)
	Lao PDR	Lower-middle	✓	X	X	Multiple
	Malaysia	Upper-middle	✓	✓	✓	Mix (govt + private)
	Myanmar	Lower-middle	✓	✓	✓	Multiple
	New Caledonia	High	✓	✓	X	Govt (no fees)
	New Zealand	High	✓	✓	✓	Govt (no fees)
	Philippines	Lower-middle	✓	✓	✓	Govt (some fees)

	Samoa	Upper-middle	✓	X	X	Govt (some fees)
	Singapore	High	✓	✓	✓	Multiple
	Thailand	Upper-middle	✓	✓	✓	Govt (some fees)
	Vietnam	Lower-middle	✓	✓	✓	Govt (some fees)
South Asia	Afghanistan	Low	✓	X	✓	Private (OOP)
	Bangladesh	Lower-middle	✓	✓	✓	Multiple
	Bhutan	Lower-middle	✓	✓	X	Govt (no fees)
	India	Lower-middle	✓	✓	✓	Multiple
	Nepal	Low	✓	✓	✓	Govt (some fees)
	Pakistan	Lower-middle	✓	✓	✓	Multiple
	Sri Lanka	Lower-middle	✓	✓	✓	Mix (govt + private)
Western Europe	Austria	High	✓	✓	✓	Govt (no fees)
	Belgium	High	✓	✓	✓	Govt (no fees)
	Denmark	High	✓	✓	✓	Govt (no fees)
	France	High	✓	✓	✓	Govt (some fees)
	Greece	High	✓	✓	✓	Govt (no fees)

Ireland	High	✓	✓	✓	Govt (no fees)
Israel	High	✓	✓	✓	Govt (no fees)
Italy	High	✓	✓	✓	Govt (no fees)
Liechtenstein	High	✓	✓	X	Private (insurance)
Luxembourg	High	✓	✓	X	Govt (no fees)
Malta	High	✓	✓	✓	Govt (no fees)
Netherlands	High	✓	✓	✓	Govt (some fees)
Norway	High	✓	✓	✓	Govt (no fees)
Portugal	High	✓	✓	✓	Govt (no fees)
Spain	High	✓	✓	✓	Govt (no fees)
Sweden	High	✓	✓	✓	Govt (some fees)
Switzerland	High	✓	✓	✓	Govt (some fees)
United Kingdom	High	✓	✓	✓	Govt (no fees)

✓ = Available X = Not Available

Govt (no fees) = Government (no fees at point of delivery)

Govt (some fees) = Government (some fees at point of delivery)

Mix (govt + private) = Mix of government (public) and private

Private (OOP) = Private (solely out-of-pocket)

Private (insurance) = Private (solely health insurance)

Multiple = Multiple sources (programs provided by government, non-government organizations, and communities)

Unknown = Funding source not known/reported

Other = Other funding sources

E & C Europe = Eastern and Central Europe; ISN = international society of nephrology; KRT = kidney replacement therapy (dialysis and transplantation, excludes conservative kidney management); NAC = North America and the Caribbean; NIS = newly independent states; N & E Asia = North and East Asia

2 countries in Western Europe (Finland and Germany) reported “Unknown” for the availability of conservative kidney management. Both countries offer hemodialysis, peritoneal dialysis, and kidney transplantation. Finland reported that kidney replacement therapy was funded publicly with no fees at the point of care. German reported an “other” funding model.

Supplemental Table 2. Number of quality indicators of conservative kidney management delivery reported overall and by country income level.

Income group	Number of indicators reported N (%) ¹						Total
	0	1	2	3	4	5	
Low	8 (44)	6 (33)	1 (6)	2 (11)	1 (6)	0 (0)	18
Lower-middle	11 (42)	3 (12)	6 (23)	3 (12)	0	3 (12)	26
Upper-middle	10 (30)	9 (27)	5 (15)	2 (6)	1 (3)	6 (18)	33
High	4 (9)	11 (23)	8 (17)	3 (6)	4 (9)	17 (36)	47
Overall	33 (27)	29 (23)	20 (16)	10 (8)	6 (5)	26 (21)	124

¹Indicators were: 1) multidisciplinary teams; 2) shared decision-making; 3) symptom management; 4) psychological, cultural, spiritual support; and 5) healthcare provider training. % was calculated as the number of countries reporting an indicator divided by the total number of countries in that region that provide conservative kidney management. Row totals may not equal 100% due to rounding.