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# Bangladesh Nephrology





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**MedCOI** 

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# Acknowledgements

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The report has been reviewed by International SOS and EUAA.



# **Contents**

Ackno	wle	dgemer	nts	3
Discla	imer	••••••		5
Gloss	ary a	nd abb	reviations	6
Introd	uctio	on		8
	Me	thodolo	ogy	8
		Terms	of reference	8
		Collec	ting information	8
		Qualit	y control	8
		Source	es	9
1.	Ne	phrolog	yy	10
	1.1.	Preval	lence and incidence of kidney diseases	1C
	1.2.	Organ	isation of healthcare facilities for nephrology	1C
		1.2.1.	Diabetes and kidney diseases	1
		1.2.2.	Hypertension	1′
		1.2.3.	Glomerulonephritis/nephrotic syndrome	1′
		1.2.4.	Acute kidney injury and critical care nephrology	1
		1.2.5.	Renal transplantation	12
	1.3.	Nation	nal institutes specialised in nephrology	12
		1.3.1.	National Institute of Kidney Diseases and Urology (NIKDU)	12
		1.3.2.	Bangabandhu Sheikh Mujib Medical University (BSMMU)	12
		1.3.3.	Dhaka Medical College Hospital (DMCH)	12
		1.3.4.	Other referral centres in Dhaka	13
2.	Acc	cess to	treatment	13
	2.1.	Follow	v-up and waiting time	13
	2.2	. Insura	nce and national programmes	14
	2.3	. Non-g	overnmental organisations (NGOs)	14
3.	Cos	st of tre	eatment	14
4.	Cos	st of me	edication	17
Anne	( 1: B	ibliogra	aphy	19
Anne	<b>( 2: 1</b>	erms o	of Reference (ToR)	21





# **Disclaimer**

This report was written according to the EUAA COI Report Methodology (2023). The report is based on carefully selected sources of information. All sources used are referenced.

The information contained in this report has been researched, evaluated and analysed with utmost care. However, this document does not claim to be exhaustive. If a particular event, person or organisation is not mentioned in the report, this does not mean that the event has not taken place or that the person or organisation does not exist.

Furthermore, this report is not conclusive as to the determination or merit of any particular application for international protection. Terminology used should not be regarded as indicative of a particular legal position.

'Refugee', 'risk' and similar terminology are used as generic terminology and not in the legal sense as applied in the EU Asylum Acquis, the 1951 Refugee Convention and the 1967 Protocol relating to the Status of Refugees.

Neither the EUAA, nor any person acting on its behalf, may be held responsible for the use which may be made of the information contained in this report.

The drafting of this report was finalised on 18 December 2023. Any event taking place after this date is not included in this report.





# Glossary and abbreviations

Term	Definition
BDT	Bangladeshi Taka
BSMMU	Bangabandhu Sheikh Mujib Medical University
CGN	Chronic Glomerulonephritis
DGDA	Directorate General of Drug Administration
<b>DMCH</b>	Dhaka Medical College Hospital
eGFR	Estimated Glomerular Filtration Rate
ICU	Intensive Care Unit
IPD	Inpatient Department
MUMC	Mugda Medical College Hospital
NGO	Non-Government Organisation
NIKDU	National Institute of Kidney Diseases and Urology
OPD	Outpatient Department
PSGN	Post-Streptococcal Glomerulonephritis
ShSMCH	Shaheed Suhrawardy Medical College Hospital
SIBL	Social Islami Bank Limited



Term	Definition
SSMCH	Sir Salimullah Medical College Hospital
Upazila	An administrative unit, which is a subdivision of a district formerly known as "thana". Bangladesh has 495 Upazilas.





# Introduction

# Methodology

The purpose of the report is to provide information on access to nephrology treatment in Bangladesh. This information is relevant to the application of international protection status determination (refugee status and subsidiary protection) and migration legislation in EU+ countries.

#### **Terms of reference**

The terms of reference for this Medical Country of Origin Information Report can be found in Annex 2: Terms of Reference (ToR). The initial drafting period finished on 06 October 2023, peer review occurred between 9-31 October 2023, and additional information was added to the report as a result of the quality review process during the review implementation up until 18 December 2023. The report was internally reviewed subsequently.

#### **Collecting information**

EUAA contracted International SOS (Intl.SOS) to manage the report delivery including data collection. Intl.SOS recruited and managed a local consultant to write the report and a public health expert to edit the report. These were selected from Intl.SOS' existing pool of consultants. The consultant was selected based on their experience in leading comparable projects and their experience of working on public health issues in Bangladesh.

This report is based on publicly available information in electronic and paper-based sources gathered through desk-based research. This report also contains information from oral sources with ground-level knowledge of the healthcare situation in Bangladesh who were interviewed specifically for this report. For security reasons, all oral sources are anonymised.

#### **Quality control**

This report was written by Intl.SOS in line with the European Union Agency for Asylum (EUAA) COI Report Methodology (2023),<sup>1</sup> the EUAA Country of Origin Information (COI) Reports Writing and Referencing Guide (2023)<sup>2</sup> and the EUAA Writing Guide (2022).<sup>3</sup> Quality control of the report was carried out both on content and form. Form and content were reviewed by Intl.SOS and EUAA.

The accuracy of information included in the report was reviewed, to the extent possible, based on the quality of the sources and citations provided by the consultants. All the

<sup>&</sup>lt;sup>1</sup> EUAA, Country of Origin Information (COI) Report Methodology, February 2023, url

<sup>&</sup>lt;sup>2</sup> EUAA, Country of Origin Information (COI) Reports Writing and Referencing Guide, February 2023, url

<sup>&</sup>lt;sup>3</sup> EUAA, The EUAA Writing Guide, April 2022, url

comments from reviewers were reviewed and were implemented to the extent possible, under time constraints.

#### **Sources**

In accordance with EUAA COI methodology, a range of different published sources have been consulted on relevant topics for this report. These include: governmental publications, academic publications, reports by non-governmental organisations and international organisations, as well as Bangladeshi media.

In addition to using publicly available sources, two oral sources were contacted for this report. The oral sources are both medical doctors and they are anonymised in this report for security reasons. The sources were assessed for their background and ground-level knowledge. All oral sources are described in the Annex 1: Bibliography. Key informant interviews were carried out in June 2023.





# 1. Nephrology

Nephrology is the branch of medicine that studies the epidemiology, diagnosis and treatment of kidney diseases.<sup>4</sup>

# 1.1. Prevalence and incidence of kidney diseases

Rashid et al. caution that it is not possible to fully define the incidence and prevalence of kidney diseases in Bangladesh, but it is agreed that they are rising. This is attributed to the growth in population and to an increased incidence of diabetes mellitus and hypertension (of which kidney diseases are a known complication): in 2018, the incidence of end-stage renal disease was 244.4 new cases per million population per year and the prevalence was 305.5 per million population, including patients with a functioning kidney transplant.<sup>5</sup>

The pattern of kidney disease in Bangladesh changed over the last three decades: the principal causes of chronic kidney disease were acute post-streptococcal glomerulonephritis (PSGN) and nephrotic syndrome. However, in 2021, Rashid et al. reported that the principal causes of chronic kidney disease were chronic glomerulonephritis (CGN) (37 %), followed by diabetic kidney disease (33 %) and hypertension 16 %.6

# 1.2. Organisation of healthcare facilities for nephrology

Qualified and trained personnel in nephrology, and up-to-date laboratory procedures to treat kidney diseases, are not widely available and not posted in primary healthcare facilities or in union health centres. Personnel with working knowledge and skills, and with some logistic support, are posted in district and general hospitals. For example, haemodialysis services are available in 170 centres across the country: 84 % of these centres have on-site doctors and 16 % have visiting doctors. These doctors are not nephrologists but are trained in the management of hypertension and other co-morbid conditions that are common in dialysis patients. Access to treatment in district and general hospitals is limited due to the high demand and low numbers of nephrologists and allied health professionals. There is a 4:1 ratio of profit-oriented dialysis centres to centres in non-profit hospitals, including public facilities and non-government organisations (NGOs).

Patients with complex kidney diseases are referred to specialist hospitals, which are mostly located in medical colleges. The most complex cases are referred to Dhaka and Chittagong.

 $<sup>^{\</sup>rm 4}$  Anumudu, S.J. and Fadem, S.Z., Nephrology in the United States of America, 2021,  $\underline{\rm url},$  p. 173

<sup>&</sup>lt;sup>5</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, <u>url</u>, pp. 222, 224

<sup>&</sup>lt;sup>6</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 224

<sup>&</sup>lt;sup>7</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous.

<sup>&</sup>lt;sup>8</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 227

<sup>&</sup>lt;sup>9</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 234

<sup>&</sup>lt;sup>10</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, <u>url</u>, p. 227

There is a private specialised hospital to treat kidney and urology diseases in Dhaka called the Centre for Kidney Diseases and Urology Hospital (CKDU), which conducts kidney dialysis and transplantation.<sup>11</sup>

Rashid et al. set out aspects of nephrology in Bangladesh, which are summarised below:<sup>12</sup>

#### 1.2.1. Diabetes and kidney diseases

The prevention and treatment of diabetes and kidney diseases is through managing hypertension, hyperglycaemia, microalbuminuria and other co-morbidities.<sup>13</sup> This is complicated by low levels of adherence to preventive and therapeutic lifestyle recommendations, such as foot care, physical exercise and blood glucose monitoring among patients with diabetes.<sup>14</sup>

#### 1.2.2. Hypertension

Hypertension is managed by general practitioners and different specialists, but Rashid et al. note low levels of awareness of hypertension and low levels of adherence to lifestyle modifications and medication for hypertension.<sup>15</sup>

#### 1.2.3. Glomerulonephritis/nephrotic syndrome

In larger hospitals, renal biopsies are performed to obtain a diagnosis of glomerulonephritis / nephrotic syndrome before treatment is initiated. At districts and sub-centres (*Upazilas*), glomerulonephritis is treated symptomatically and then referred to a specialist. <sup>16</sup>

#### 1.2.4. Acute kidney injury and critical care nephrology

In Bangladesh, acute kidney injury is noted among young patients, and most patients present after developing it in the community. This is in contrast with high-income countries where acute kidney injury is predominantly seen in hospitalised patients, in intensive care units (ICUs) and among elderly patients. In Bangladesh, acute kidney injury is generally diagnosed on the basis of serum creatinine and estimated glomerular filtration rate (eGFR). There are siginificant variations in diagnostic and therapeutic capabilities between community clinics, medical colleges and the hospitals across the country. While oral rehydration solutions are widely available, intravenous fluids, antimalarial drugs and common antibiotics are only available in district hospitals and sub-centres. After initial management, patients are usually referred to tertiary care centres where if critically ill, they are managed at ICUs.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, <u>url</u>, pp. 225-226



11

<sup>&</sup>lt;sup>11</sup> Center for Kidney Diseases & Urological Hospital, 2021, url

<sup>&</sup>lt;sup>12</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 224

<sup>&</sup>lt;sup>13</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, <u>url</u>, p. 225

<sup>&</sup>lt;sup>14</sup> Mumu, S.J., et al., Non-adherence to Life-style Modification and its Factors Among Type 2 Diabetic Patients, 2014, url, p. 40

<sup>&</sup>lt;sup>15</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 225

<sup>&</sup>lt;sup>16</sup> Rashid, H.U., et al., Nephrology in Bangladesh, 4 March 2021, url, p. 224



#### 1.2.5. Renal transplantation

Kidney transplants are conducted on a limited scale in Bangladesh and the survival rate of transplant patients is comparable to those in high-income countries. Mitra et al. present results from ten years of living donor kidney transplants in BIRDEM General Hospital, Dhaka, Bangladesh. There were 111 transplants performed from 2004 - 2014, with a male to female ratio of 2.3:1. The mean age of the recipients was  $37.45\pm10.58$  years. There were 64.9% recipients who had an uncomplicated recovery, and the most common complication during post-transplant hospital stay was infection (27.0%). Patient survival at one year, three years and five years was 98.1%, 88.24% and 84.09%, respectively. The Centre for Kidney Diseases and Urology Hospital in Dhaka states that in 2021, it performed 184 transplants with a 96% success rate.

# 1.3. National institutes specialised in nephrology

Currently, most tertiary level treatment institutes for kidney and urological diseases, either public or private, are based in Dhaka and Chittagong. The Ministry of Health has plans to gradually expand the services to divisions and districts.<sup>20</sup>

#### 1.3.1. National Institute of Kidney Diseases and Urology (NIKDU)

NIKDU was created to provide education, research and treatment facilities for kidney diseases in the country. NIKDU is located in Dhaka and is a tertiary centre for nephrology and urology diseases. NIKDU provides outpatient department (OPD) and inpatient department (IPD) services, and trains doctors and paramedics.<sup>21</sup>

#### 1.3.2. Bangabandhu Sheikh Mujib Medical University (BSMMU)

BSMMU is a tertiary medical referral centre and a postgraduate medical institute, which provides medical education in different specialities. It is located in Dhaka.<sup>22</sup>

#### 1.3.3. Dhaka Medical College Hospital (DMCH)

DCMH started as a British Indian field hospital in 1946 and is now the oldest public hospital in Bangladesh. It is a 2 600-bed public hospital. This hospital provides postgraduate courses and is a referral centre for kidney diseases.<sup>23</sup>

<sup>&</sup>lt;sup>18</sup> Mitra, P., et al., A Decade of Live Related Donor Kidney Transplant: Experience in a Tertiary Care Hospital of Bangladesh, 2018, <u>url</u>, pp. 199-201

<sup>&</sup>lt;sup>19</sup> Centre for Kidney Diseases and Urology Hospital, About Us, 2021, url

<sup>&</sup>lt;sup>20</sup> Source A, interview, 11 June 2023, Dhaka. Source A is a Professor of Nephrology and Urology at BSMMU. The person wishes to remain anonymous

<sup>&</sup>lt;sup>21</sup> NIKDU, Director message, n.d., url

<sup>&</sup>lt;sup>22</sup> BSMMU, About BSMMU, 2023, url

<sup>&</sup>lt;sup>23</sup> DMCH, About, 2022, url

#### 1.3.4. Other referral centres in Dhaka

Other referral centres for kidney diseases in Dhaka are:

- Sir Salimullah Medical College Hospital (SSMCH);<sup>24</sup>
- Shaheed Suhrawardy Medical College Hospital (ShSMCH);<sup>25</sup> and
- Mugda Medical College & Hospital (MUMC).<sup>26</sup>

### 2. Access to treatment

Primary healthcare facilities, including *Upazila* healthcare complexes, do not treat kidney diseases. Districts and general hospitals are not fully equipped to diagnose and provide all types of treatments, including dialysis in case of renal failure, management of end-stage renal failure and kidney transplantation. Tertiary level facilities to treat complicated cases of kidney and urological diseases are based only in Dhaka and Chittagong. The Bangladesh government has plans to expand the provision of treatment in those district and general hospitals.<sup>27</sup>

# 2.1. Follow-up and waiting time

Follow-up treatment for kidney and urological diseases is available through tertiary public and private health facilities. However, due to low capacity and high number of patients, there are extra waiting times for treatments in tertiary public and private health facilities in Dhaka and Chittagong (e.g. dialysis, psychiatric care and oncology treatments usually tend to have long waiting times). Citizens who come to get treatment in the country after spending time abroad have to go through the same procedures to wait and pay for their treatment and laboratory tests.<sup>28</sup>

<sup>&</sup>lt;sup>28</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous



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<sup>&</sup>lt;sup>24</sup> SSMCH, [website], 2022, url

<sup>&</sup>lt;sup>25</sup> ShSMCH, [website], 2016, url

<sup>&</sup>lt;sup>26</sup> MUMC, [website], 2023, <u>url</u>

<sup>&</sup>lt;sup>27</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous



### 2.2. Insurance and national programmes

Patients with kidney diseases who visit hospitals, either public or private, must bear the full cost of their treatments. This includes costs for medicine, consultation and laboratory tests, and payment for hospital beds. The payment will need to be made in advance and before the patients receive treatment. This also applies to citizens returning to Bangladesh, after several years of living abroad. Health policy provides no financial support to patients in the form of social protection or health insurance to enable them to access services at public or private facilities.<sup>29</sup>

# 2.3. Non-governmental organisations (NGOs)

Some treatment/referral centres for kidney and urology diseases are run by NGOs and donors as part of their social corporate responsibilities. The majority of NGO centres to treat kidney and urological diseases are located in Dhaka. The Kidney Foundation of Bangladesh started in 2003 with BDT 75 000 as capital investment and six dialysis machines on loan.<sup>30</sup> It provides treatment and diagnostic services. It has inpatient and outpatient facilities, and it provides treatment and free-of-charge beds for patients who are 'poor'.<sup>31</sup> Various donors, particularly from banks, provided donation for this hospital.<sup>32</sup>

The Social Islami Bank Limited (SIBL) supports a hospital for kidney diseases.<sup>33</sup>

Gonoshasthaya Kendra is a registered public charitable trust and an NGO.<sup>34</sup> The Gonoshasthaya Kendra Dialysis Centre is one of the largest dialysis centres in the Gonoshasthaya Kendra Nagar Hospital in Dhaka.<sup>35</sup>

### 3. Cost of treatment

For inpatient admission to public hospitals, the cost includes bed/daily rate for admission, fees for investigations and expenses related to food. Private hospitals charge for all the aforementioned items, and add consultation fees for the specialists. Rates for investigation, for beds and for consultation with specialists differ between public hospitals and private hospitals. Official fees and prices in public hospitals are strictly observed. However, beds at lower prices

4

<sup>&</sup>lt;sup>29</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous

<sup>30</sup> Kidney Foundation Bangladesh, About Kidney Foundation, 2023, url

<sup>&</sup>lt;sup>31</sup> Kidney Foundation Bangladesh, Indoor Facilities at Kidney Foundation Hospital, 2023, url

<sup>32</sup> Kidney Foundation Bangladesh, Donator from 2005 to 2011, 2023, url

<sup>33</sup> SIBL Foundation Hospital & Diagnostic Center [Facebook], n.d., url

<sup>&</sup>lt;sup>34</sup> Gonoshasthaya Kendra, About Gonoshasthaya Kendra, n.d., url

<sup>35</sup> Gonoshasthaya Kendra, Organizations, n.d., url

for poor patients are not easily accessible, as facilities have a high patient load in relation to the demand. Consequently, patients have to rent rooms with additional facilities, such as air conditioning, for higher prices.<sup>36</sup>

The Social Welfare Department in government hospitals and other healthcare facilities can evaluate and certify individuals for exemption from payment of OPD or IPD charges that include admission fees, bed charges and laboratory charges, if they are unable to afford healthcare.<sup>37</sup>

Table 1. Prices for consultation<sup>38</sup>

Specialist	Public outpatient treatment price in BDT	Public inpatient treatment price in BDT	Private outpatient treatment price in BDT	Private inpatient treatment price in BDT	Reimbursement/ special programme/ free/ comments
Consultation by an internist	30	500	1000	1800	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment
Consultation by a nephrologist	200	500	1000	1800	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment

Table 2. Prices for treatments and diagnostic tests<sup>39</sup>

Public treatment price in BDT		Private treatment price in BDT	Reimbursement/ special programme/ free/ comments		
Laboratory research					
Laboratory test/acid-base	500	1500	Usually there is no exemption but the Social		

<sup>&</sup>lt;sup>36</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous

<sup>&</sup>lt;sup>39</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous



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<sup>&</sup>lt;sup>37</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous

<sup>&</sup>lt;sup>38</sup> Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous



	Public treatment price in BDT	Private treatment price in BDT	Reimbursement/ special programme/ free/ comments
balance in blood and urine; e.g. serum and urine pH, electrolyte levels			Welfare Department can recommend free or partial payment
Bacterial cultures	100	1 000	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment
Laboratory test: PTH, calcium, phosphate	450	1500	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment
Renal/kidney fun	ction		
Creatinine	280	600	
Urea	220	550	Usually there is no exemption but the Social
Proteinuria	250	300	Welfare Department can recommend free or
Sodium potassium level	350	800	partial payment
Medical imaging			
Diagnostic imaging: (Doppler) ultrasound (e.g. of the kidney)	2 000	5 000	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment
Treatments			
Clinical admittance in nephrology department (daily rates)	1500	6 000	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment



	Public treatment price in BDT Private treatment price in BDT		Reimbursement/ special programme/ free/ comments	
Nephrology: chronic haemodialysis	1000 per session	5 000 per session	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment	
Nephrology: Acute haemodialysis	800 per session	4 000 per session	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment	
Peritoneal dialysis; costs of one session	1000	5 000	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment	
Kidney transplantation 100 000 and follow-up		500 000	Usually there is no exemption but the Social Welfare Department can recommend free or partial payment	

# 4. Cost of medication

Medicines required for nephrology and kidney diseases are available in pharmacies, particularly in those pharmacies near hospitals which provide nephrological care, such as divisional hospitals in Dhaka and Chattogram. Tertiary level care for nephrology and urological diseases are mostly available in those two cities. An interviewee for this report stated that prices of medicines are tagged on the boxes of medicines or on the ampoules of injections. As per supply, purchase and sales rules of the Directorate General of Drug Administration (DGDA), the prices of medicines are set to an upper limit.<sup>40</sup>

In Table 3, the reference pharmacy is the BIRDEM Pharmacy in Shahbag, Dhaka.

<sup>&</sup>lt;sup>40</sup> Source A, interview, 11 June 2023, Dhaka. Source A is a Professor of Nephrology and Urology at BSMMU. The person wishes to remain anonymous



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Table 3. Cost of medications<sup>41</sup>

Generic Name	Brand name	Strength of unit	Form	Number of units in the container	Price per box in BDT	Place (pharmacy, hospital,)
Darbe-poetin alpha	Darbesis™	40 mcg / 0.4 ml	Injection	1	4 545.15	Pharmacy
Epoetin alpha	Eporen™	2 000 IU/0.2ml	Injection	1	1103	Pharmacy
Epoetin beta	Recormon®	2 000 IU/0.3 ml	Injection	1	1000	Pharmacy
Calcium acetate + magnesium carbonate	Renocal Plus <sup>®</sup>	Calcium acetate (435 mg) and magnesium carbonate (235 mg)	Tablet	30	360	Pharmacy
Calcium carbonate	Calcicar <sup>®</sup>	500 mg	Tablet	50	650	Pharmacy
Anthanum carbonate	Lanfos®	500 mg	Tablet	30	3 000	Pharmacy
Sodium bicarbonate (= sodium hydrogen carbonate)	Sodib®	7.5 % in a 25 ml vial	Injection	24	601.92	Pharmacy

Note: Medication prices are not reimbursed by any public health insurance mechanisms.

 $^{41}$  Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous



18



# **Annex 1: Bibliography**

# Oral sources, including anonymous sources

Source A, interview, 11 June 2023, Dhaka. Source A is a Professor of Nephrology and Urology at BSMMU. The person wishes to remain anonymous.

Source B, interview, 11 June 2023, Dhaka. Source B is an Associate Researcher at the Department of Kidney and Urology, BSMMU. The person wishes to remain anonymous.

#### **Public sources**

Anumudu, S.J. and Fadem, S.Z., Nephrology in the United States of America, in: Nephrology Worldwide, 2021, available by subscription at: <a href="https://doi.org/10.1007/978-3-030-56890-0\_15">https://doi.org/10.1007/978-3-030-56890-0\_15</a>, pp. 173-186, accessed 12 June 2023

BSMMU (Bangabandhu Sheikh Mujib Medical University), About BSMMU, 2023, <a href="http://bsmmu.ac.bd">http://bsmmu.ac.bd</a>, accessed 12 June 2023

Centre for Kidney Diseases and Urology Hospital, 2021, <a href="https://kidneyhospitalckdubd.com/">https://kidneyhospitalckdubd.com/</a>, accessed 12 June 2023

Centre for Kidney Diseases and Urology Hospital, About Us, 2021, <a href="https://kidneyhospitalckdubd.com/about-us-6/">https://kidneyhospitalckdubd.com/about-us-6/</a>, accessed 12 June 2023

Diabetic Association of Bangladesh, Free Diabetes Health Care Delivery, October 2023, <a href="https://www.dab-bd.org/sub-page.php?sub\_category=18">https://www.dab-bd.org/sub-page.php?sub\_category=18</a>, accessed 14 August 2023

Diabetic Association of Bangladesh, Statistical Yearbook 2020-2021, <a href="https://drive.google.com/file/d/1lE59cBG-VQ7j-3kJj72KGgMtsy7bgXME/view?usp=share\_link">https://drive.google.com/file/d/1lE59cBG-VQ7j-3kJj72KGgMtsy7bgXME/view?usp=share\_link</a>, accessed 14 August 2023

Dhaka Medical College Hospital (DMCH), About, 2022, <a href="https://dmch.gov.bd/about/dhaka-medical-college-hospital">https://dmch.gov.bd/about/dhaka-medical-college-hospital</a>, accessed 12 June 2023. [The original source website, Dhaka Medical College Hospital, is not accessible at the time of writing.]

Gonoshasthaya Kendra, About Gonoshasthaya Kendra, n.d., <a href="https://gonoshasthayakendra.org/">https://gonoshasthayakendra.org/</a>, accessed 12 June 2023

Kidney Foundation Bangladesh, About Kidney Foundation, 2023, <a href="https://www.kidneyfoundationbd.com/">https://www.kidneyfoundationbd.com/</a>, accessed 14 August 2023

Kidney Foundation Bangladesh, Donator from 2005 to 2011, 2023, <a href="https://www.kidneyfoundationbd.com/donation/donator">https://www.kidneyfoundationbd.com/donation/donator</a>, accessed 12 June 2023

Kidney Foundation Bangladesh, Indoor Facilities at Kidney Foundation Hospital, 2023, <a href="https://www.kidneyfoundationbd.com/facilities/indoor-facilities">https://www.kidneyfoundationbd.com/facilities/indoor-facilities</a>, accessed 14 August 2023





Mitra, P., Hossain, M.G., Hossan, M.E., Khoda, M.M.E., Rahim, M.A., Hossain, M.J., Billah, M.M., Ul Haque, W.M.M., Rahman, M.A., Iqbal, S. and Mansur, M.A., A Decade of Live Related Donor Kidney Transplant: Experience in a Tertiary Care Hospital of Bangladesh, in: BIRDEM Medical Journal, Vol. 8, Issue 3, 2018, <a href="https://doi.org/10.3329/birdem.v8i3.38121">https://doi.org/10.3329/birdem.v8i3.38121</a>, pp. 198-202, accessed 14 August 2023

MUMC (Mugda Medical College Hospital), [website], 2023, <a href="http://mumc.gov.bd/">http://mumc.gov.bd/</a>, accessed 12 June 2023

Mumu, S.J., Saleh, F., Ara, F., Afnan, F. and Ali, L., Non-adherence to Life-style Modification and its Factors Among Type 2 Diabetic Patients, in: Indian Journal of Public Health, Vol. 58, Issue 1, 2014,

https://journals.lww.com/ijph/fulltext/2014/58010/non\_adherence\_to\_life\_style\_modification\_and\_its.9.aspx, pp. 40-44, accessed 14 August 2023

National Institute of Kidney Diseases & Urology (NIKDU), Director message, n.d., https://www.nikdu.org.bd/msg.php, accessed 20 September 2023

Rashid, H.U., Alam, M. R., Khanam, A., Rahman M.M., Ahmed, S., Mostafi, M., Arefin, S.U.Z., Kashem, T. S., Begum, N.A.S., Alam, K. S. & Islam, N., Nephrology in Bangladesh, in: Nephrology Worldwide, Springer International Publishing, 2021, available by subscription at: <a href="https://doi.org/10.1007/978-3-030-56890-0\_18">https://doi.org/10.1007/978-3-030-56890-0\_18</a>, pp. 221-238, accessed 12 June 2023

Shaheed Suhrawardy Medical College Hospital (ShSMCH), [website], 2016, <a href="mailto:shsmc.gov.bd">shsmc.gov.bd</a>, accessed 12 June 2023

SIBL Foundation Hospital & Diagnostic Center [Facebook], n.d., https://www.facebook.com/SIBL.Foundation.Hospital/, accessed 12 June 2023

Sir Salimullah Medical College Mitford Hospital (SSMCH), [website], 2022, https://ssmcmh.gov.bd/, accessed 12 June 2023





# **Annex 2: Terms of Reference (ToR)**

# Topical report: Nephrology (kidney diseases; renal failure)

Note for drafters: These are guidelines on the information to be included. If one aspect is not relevant, e.g., there is no national institute to treat this disease or no international donor programme, there is no need to mention it. Keep the focus on treating medicine – preventive care can be mentioned but is of less interest to the target group.

#### General information

- Briefly describe prevalence and incidence of chronic kidney disease and kidney failure (epidemiologic data).
- How is the health care organized for chronic kidney disease and kidney failure?
- How is the disease treated at specific centres, in primary health care centres, secondary care / hospitals, tertiary care etc.?
- Which kinds of facilities can treat the disease [public, private not for profit (e.g., hospitals run by the church), private for-profit sector]? Include links to facilities' websites if possible.
- How are the resources organized in general to treat patients with chronic kidney disease and kidney failure? Are there sufficient resources available to treat all patients?
- Is there a particular type of this disease for which no (or only partial) treatment exists in the country?
- Is there a (national) institute specialised in treating chronic kidney disease and kidney failure?
- Are there any national or international plans or (donor) programmes for chronic kidney disease and kidney failure; if yes, could you elaborate on such programme(s) and what it entails?

### Access to treatment

- Are there specific treatment programmes for chronic kidney disease and kidney failure? If so, what are the eligibility criteria to gain access to it and what they contain?
- Are there specific government (e.g., insurance or tax) covered programmes for chronic kidney disease and kidney failure? If so, what are the eligibility criteria to gain access to it?
- Are there any factors limiting the access to healthcare for patients? If so, are they economic, cultural, geographical, etc.? Are there any policies to improve access to healthcare and/or to reduce the cost of treatments and/or medication? What is the number of people having access to treatment? Keep focus on e.g., waiting times rather than the exact number of specialists in the field.
- If different from information provided in the general section; is the treatment geographically accessible in all regions?





- What is the 'typical route' for a patient with chronic kidney disease and kidney failure (after being diagnosed with the disease)? In other words: for any necessary treatment, where can the patient find help and/or specific information? Where can s/he receive follow-up treatment? Are there waiting times for treatments (e.g., dialysis, consultation by nephrologist, laboratory research, etc)?
- What must the patient pay and when?
- Is it the same scenario for a citizen returning to the country after having spent a number of years abroad?
- What financial support can a patient expect from the government, social security or a public or private institution? Is treatment covered by social protection or an additional / communal health insurance? If not, how can the patient gain access to a treatment?
- Any occurrences of healthcare discrimination for people with chronic kidney disease and kidney failure?

# Insurance and national programmes

Include if relevant, otherwise delete section.

- National coverage (state insurance).
- Programmes funded by international donor programmes, e.g., UNICEF, Gates foundation, Clinton foundation etc.
- Include any insurance information that is specific for patients with this disease.

#### Cost of treatment

Guidance / methodology on how to complete the tables related to treatments:

- Do not delete any treatments from the tables. Instead state that they could not be found if that is the case.
- In the table, indicate the price for inpatient and outpatient treatment in public and private facility and if the treatments are covered by any insurance or by the state.
- For inpatient, indicate what is included in the cost (bed / daily rate for admittance, investigations, consultations...). For outpatient treatment, indicate follow up or consultation cost.
- Is there a difference in respect to prices between the private and public facilities?
- Are there any geographical disparities?
- Are the official prices adhered to in practice?
- Include links to online resources used, if applicable (e.g., hospital websites).

Note: a standardised list of treatments was also included in the original ToR, as can be viewed in the report.

#### Cost of medication

Guidance / methodology on how to complete the tables related to medications:





- Do not delete any medicines from the tables. Instead, state that they could not be found if that is the case.
- Are the available medicines in general accessible in the whole country or are there limitations?
- Are the medicines registered in the country? If yes, what are the implications of it being registered?
- Indicate in the tables: generic name, brand name, dosage, form, pills per package, official prices, source, insurance coverage.
- Are (some of the) medicines mentioned on any drug lists like national lists, insurance lists, essential drug lists, hospital lists, pharmacy lists etc.?
  - o If so, what does such a list mean specifically in relation to coverage?
- Are there other kinds of coverage, e.g., from national donor programmes or other actors?
- Include links to online resources used, if applicable (e.g., online pharmacies).

Note: a standardised list of medication was also included in the original ToR, as can be viewed in the report.

#### **NGOs**

Include if relevant, otherwise delete section.

- Are any NGOs or international organisations active for patients with chronic kidney disease and kidney failure? What are the conditions to obtain help from these organisations? What help or support can they offer?
- Which services are free of charge and which ones are at a cost? Is access provided to all patients or access is restricted for some (e.g., in case of faith-based institutions or in case of NGOs providing care only to children for instance).



