COVAX COLD CHAIN EQUIPMENT TECHNOLOGY GUIDE

OVERVIEW

Under the COVAX CCE support the following product categories of equipment are eligible for procurement. All equipment procured through this platform must have WHO PQS certification, with some categories (e.g. fridges, combine fridge/freezers and freezers) requiring more stringent standards (e.g. Grade-A freeze protection) to be met.

- Walk-in Cold Rooms (WICR) and WICR with freezers
- Fridges & Freezers
  - Ice-Lined Refrigerators (ILRs) and combined ILR fridge/freezers
  - Solar Direct Drive (SDD) Refrigerators and combined SDD fridge/freezers
  - Mains-powered & SDD Freezers
- Passive Devices
  - Vaccine carriers (traditional and freeze-preventative)
  - Cold boxes (traditional and freeze-preventative)
- Monitoring Devices
  - Remote Temperature Monitoring (RTM) Devices for both WICRs and ILR/SDDs
  - 30-day temperature recorders (30DTRs) bundled with ILR/SDDs
- Spare parts for newly purchased CCE

For an overview of the fridges and freezers (ILRs and SDDs), long term passive devices, freeze-free vaccine carriers and cold boxes, 30-DTRs, RTMDs for fridges and voltage stabilizers for ILRs, please see the **CCEOP Technology Guide**

This COVAX CCE Technology Guide contains an overview of additional CCE available for procurement through COVAX support that is not currently included in the CCEOP platform. This includes WICRs, WICRs with freezers and related RTMDs and voltage stabilizers, standard passive devices (vaccine carriers and cold boxes) and ice packs. If additional CCE product categories become eligible for procurement through COVAX support this guide will be updated to reflect any new equipment.

This guide focuses on overviewing the equipment models and their specifications available for procurement through Gavi-funded COVAX support (in addition to CCEOP-platform eligible equipment); additional guidance to help you select the right CCE for your country's specific needs are referenced throughout. All equipment listed in this guide are prequalified by WHO PQS and available through procurement from UNICEF Supply Division via Long Term Agreements with suppliers.

HOW TO MAKE PURCHASING DECISIONS

This guide is designed to help you think through which equipment to purchase and focuses on storage and transport needs at the highest levels of the cold chain (national and regional levels). CCE can be procured for district levels as well when justified.

To assess your excess cold chain capacity needs for storage of COVID-19 vaccines, please use the Completed WHO CCE Sizing Tool. The tool can be found on the WHO website. Please ensure calculations align with the assumptions provided in the CCE Support Guidelines Technical Annex (Section 4.0).
Overall guidance on procuring CCE is available from UNICEF Supply Division here, along with UNICEF Supply Division's CCE Catalogue. In addition, you can also consult the WHO-UNICEF Effective Vaccine Store Management guide and the WHO Vaccine management handbook's guide to calculating vaccine volumes and cold chain capacity requirements for further information.

WALK IN COLD ROOMS (WICRS)

Please see UNICEF's procurement guide to selecting the appropriate WICR for your needs and available site. The guide includes an overview of assessing your additional capacity needs in light of current and future expected vaccine volume requirements, technical specifications of the WICRs, and site readiness considerations, including power supply. Guidance from the WHO is also available for establishing or improving vaccine stores at the higher levels (primary and intermediate) of the vaccine cold chain.

If site readiness or other considerations may delay deployment timelines or reduce the need for additional WICR capacity after COVID-19 vaccines are delivered, countries may consider leasing cold space in lieu of procuring WICRs, which can be supported with Gavi-funded COVAX CCE support.

PASSIVE DEVICES

Vaccine carriers and cold boxes protect vaccine potency during transport between cold storage sites and during immunization sessions and transport to outreach sites. Please see UNICEF's procurement guide to selecting the appropriate vaccine carrier or cold box for your needs. This guide overviews standard vaccine carriers and cold boxes, which require the use of conditioned ice packs or cool water packs. Please view the CCEOP Technology Guide for product overviews and information on selecting vaccine carriers and cold boxes with freeze-preventive technology.

Guidance on selecting between standard and freeze-preventive passive devices is being developed and will be made available here once finalized. If your immunisation programme uses cool water packs (for short distance travel) instead of ice packs, freeze-preventive cold boxes and vaccine carriers (which require use of unconditioned frozen ice packs) may not be appropriate for your programme.

REMOTE TEMPERATURE MONITORING

For all WICRs and ILRs/SDDs procured through COVAX support you should also select an RTM device appropriate for the equipment. Some CCE comes with integrated RTM capabilities, in which case you will not need to select a separate device. Please see the CCEOP Technology Guide for an overview of the RTMDs available for ILRs/SDDs. Please contact UNICEF Supply Division Cold Chain Unit for assistance in selecting an appropriate RTMD for the WICR you have selected.

VOLTAGE STABILIZERS

All WICRs should come bundled with a voltage stabilizer. Please see UNICEF's procurement guide to selecting the appropriate voltage stabilizer if new ones are needed for existing WICRs that will store COVID-19 vaccines. Additional voltage stabilizers for ILRs that will store COVID-19 vaccines can be selected with guidance from the CCEOP Technology Guide.

AVAILABLE EQUIPMENT

WALK-IN COLD ROOMS

WICR are available in three sizes: 10 m^3, 30 m^3, and 40 m^3. Some of the 40m3 WICRs are available as a combined WICR/freezer room (WIFR). There are two types of WICRs – mono (plug-in) models and split-unit models. Please see UNICEF's guidance for the pros and cons of each type before you make your selection.

Costs for WICRs include the cost of equipment, as listed in the table. Estimated costs for installation, training and commissioning are provided for an expected range within an equipment volume category, but actual costs will vary by country (including intra-country variation) and supplier. Please contact UNICEF SD if you require transportation and in-country storage of the WICR/s prior to installation. In addition to cost of equipment and the installation/training/commissioning, you should keep in mind the potential operational expenses of the WICR over its expected lifespan, which includes the cost of spare parts, energy, maintenance, repairs, and servicing of the RTMD. Additional costs such as procurement agency fees are not included.

The table below shows prices for platform-eligible products. The estimated range of installation/training/commissioning costs are:

- USD 11,000 - 15,000 for 10cbm WICRs
- USD 16,500 - 23,000 for 30cbm WICR
- USD 18,500 - 26,000 for 40cbm WICRs

Walk-in Cold Rooms (no freezer)

Supplier	Model	Inside Dimensions L x W x H in mm	Outside Dimensions L x W x H in mm	Cooling Unit Type	Electrical Supply	UNICEF indicative price 1-4 units, USD
Gross Internal Volume, 10,000 L						
Foster	Foster 10 cbm	2100 x 2100 x 2100	2300 x 2300 x 2300	Mono cooling unit	230V-1 phase-50Hz	16,405
Haier	Haier 10 cbm	2400 x 1800 x 2400	2600 x 2000 x 2600	Mono cooling unit	230V-1 phase-50Hz	11,900
Porkka	Porkka 10 cbm	1900 x 2500 x 2100	2100 x 2700 x 2300	Mono cooling unit	230V-1 phase-50Hz or 110V/1/60Hz	17,077
Viessmann	Viessmann 10 cbm	2240 x 2240 x 2250	2400 x 2400 x 2410	Mono cooling unit	230V-1 phase-50Hz	19,659
Zhendre	Zhendre 10 cbm	2000 x 2000 x 2415	2200 x 2200 x 2675	Mono cooling unit	230V-1 phase-50Hz or 110V/1/60Hz	15,369

Gross Internal Volume, 30,000 L						
Foster	Foster 30 cbm	3690 x 3690 x 2100	3890 x 3890 x 2300	Mono cooling unit	380V-3 phase-50Hz	23,777
Haier	Haier 30 cbm	4600 x 2730 x 2400	4800 x 2930 x 2600	Mono cooling unit	380V-3 phase-50Hz	18,900
Haier	Haier 30 cbm	4600 x 2730 x 2400	4800 x 2930 x 2600	Split cooling unit	380V-3 phase-50Hz	22,600
Porkka	Porkka 30 cbm	3400 x 4300 x 2100	3600 x 4500 x 2300	Mono cooling unit	380V-3 phase-50Hz	23,574
Porkka	Porkka 30 cbm	3400 x 4300 x 2100	3600 x 4500 x 2300	Split cooling unit	380V-3 phase-50Hz	26,121
Viessmann	Viessmann 30 cbm	4940 x 2840 x 2250	5100 x 3000 x 2410	Mono cooling unit	380V-3 phase-50Hz	26,073
Viessmann	Viessmann 30 cbm	4940 x 2840 x 2250	5100 x 3000 x 2410	Split cooling unit	380V-3 phase-50Hz	26,775
Zhendre	Zhendre 30 cbm	3600 x 3600 x 2415	3800 x 3800 x 2675	Mono cooling unit	380V-3 phase-50Hz or 220/3/60Hz+T	22,226
Zhendre	Zhendre 30 cbm	3600 x 3600 x 2415	3800 x 3800 x 2675	Split cooling unit	380V-3 phase-50Hz or 220/3/60Hz+T	25,318
Gross internal volume, 40,000 L						
Foster	Foster 40 cbm	4260 x 4260 x 2100	4460 x 4460 x 2300	Mono cooling unit	380V-3 phase-50Hz	25,133
Haier	Haier 40 cbm	4600 x 3600 x 2400	4800 x 3800 x 2600	Mono cooling unit	380V-3 phase-50Hz	~~31,050~~ 21,100
Haier	Haier 40 cbm	4600 x 3600 x 2400	4800 x 3800 x 2600	Split cooling unit	380V-3 phase-50Hz	~~34,050~~ 23,100
Porkka	Porkka 40 cbm	3550 x 5500 x 2100	3750 x 5700 x 2300	Mono cooling unit	380V-3 phase-50Hz	26,597
Porkka	Porkka 40 cbm	3550 x 5500 x 2100	3750 x 5700 x 2300	Split cooling unit	380V-3 phase-50Hz	30,405
Viessmann	Viessmann 40 cbm	5240 x 3440 x 2250	5400 x 3600 x 2410	Mono cooling unit	380V-3 phase-50Hz	27,989
Viessmann	Viessmann 40 cbm	5240 x 3440 x 2250	5400 x 3600 x 2410	Split cooling unit	380V-3 phase-50Hz	28,703
Zhendre	Zhendre 40 cbm	4000 x 4000 x 2415	4200 x 4200 x 2675	Mono cooling unit	380V-3 phase-50Hz or 220/3/60Hz+T	25,008
Zhendre	Zhendre 40 cbm	4000 x 4000 x 2415	4200 x 4200 x 2675	Split cooling unit	380V-3 phase-50Hz or 220/3/60Hz+T	28,492

Note: This table uses United Nations (UN) exchange rates as of October 2020.

Walk-in Cold Rooms with Freezers

Supplier	Model	Inside Dimensions L x W x H in mm	Outside Dimensions L x W x H in mm	Cooling Unit Type	Electrical Supply	UNICEF indicative price 1-4 units, USD (Sea shipments)
Gross internal storage capacity, 40,000 L						
Haier	Haier 40cbm WICR/WIFR combo	2980 x 3560 x 2360 (WIC) 1860 x 3560 x 2360 (WIF)	3100 x 3800 x 2600 (WIC) 2100 x 3800 x 2600 (WIF)	Mono cooling unit	380V-3 phase-50Hz	27,500
Haier	Haier 40cbm WICR/WIFR combo	2980 x 3560 x 2360 (WIC) 1860 x 3560 x 2360 (WIF)	3100 x 3800 x 2600 (WIC) 2100 x 3800 x 2600 (WIF)	Split cooling unit	380V-3 phase-50Hz	36,500
Porkka	Porkka 40cbm WICR/WIFR combo	2800 x 4250 x 2100 (WIC) 2700 x 2700 x 2100 (WIF)	3000 x 4500 x 2300 (WIC) 3000 x 3000 x 2400 (WIF)	Mono cooling unit	400V-3 phase-50Hz	34,596
Porkka	Porkka 40cbm WICR/WIFR combo	2800 x 4250 x 2100 (WIC) 2700 x 2700 x 2100 (WIF)	3000 x 4500 x 2300 (WIC) 3000 x 3000 x 2400 (WIF)	Split cooling unit	400V-3 phase-50Hz	43,099
Viessmann	Viessmann 40cbm WICR/WIFR combo	2840 x 3440 x 2250 (WIC) 2160 x 3360 x 2250 (WIF)	3000 x 3600 x 2410 (WIC) 2400 x 3600 x 2490 (WIF)	Mono cooling unit	400V-3 phase-50Hz 230V-3 phase-50Hz	45,439
Viessmann	Viessmann 40cbm WICR/WIFR combo	2840 x 3440 x 2250 (WIC) 2160 x 3360 x 2250 (WIF)	3000 x 3600 x 2410 (WIC) 2400 x 3600 x 2490 (WIF)	Split cooling unit	400V-3 phase-50Hz 230V-3 phase-50Hz	48,339
Zhendre	Zhendre 40cbm WICR/WIFR combo	3200 x 3200 x 2415 (WIC) 2000 x 3200 x 2415 (WIF)	3500 x 3500 x 2775 (WIC) 2300 x 3500 x 2775 (WIF)	Mono cooling unit	400V-3 phase-50Hz or 220/3/60Hz+T +/-10%	38,626
Zhendre	Zhendre 40cbm	3200 x 3200 x 2415 (WIC) 2000 x 3200 x 2415 (WIF)	3500 x 3500 x 2775 (WIC) 2300 x 3500 x 2775 (WIF)	Split cooling unit	400V-3 phase-50Hz or 220/3/60Hz+T +/-10%	45,680

Note: This table uses United Nations (UN) exchange rates as of October 2020.

VOLTAGE STABILIZERS FOR WALK-IN COLD ROOMS

Voltage stabilizers are used to protect on-grid WICRs from damage caused by fluctuations in the electricity supply. They protect the WICR's control unit, compressor, fuses and other electronic components against damage resulting from power fluctuations such as:

- Voltage levels that either too low or high
- Voltage spikes caused by nearby lightning strikes, switching effects, or improper grounding
- Frequency deviations

Voltage stabilizers will come with the WICR and be installed as part of the WICR installation and are not expected to have a service bundle fee. The below table lists available voltage stabilizers if countries need to procure additional ones for existing WICRs that will store COVID-19 vaccines. Additional costs such as procurement agency fees are not included.

Supplier	Model	kVA	Nominal input and output voltage and frequency:	Singe or Three phase	UNICEF indicative price 1-9 units, USD
Sagar	SVS-5K-1P-ER	5 kVA	230V/50Hz	Single	550
Sagar	SVS-10K-1P-ER	10 kVA	230V/50Hz	Single	950
Sollatek	SVS45E 45A 10kVA 120-288V	10 kVA	230V/50Hz	Single	1,032
Sagar	SVS-10K-TP	10 kVA	280-450V/50Hz	Three	1,085
Sollatek	AVR3LE020, 20Amps/phase	10 kVA	294-500V/50Hz	Three	1,011
Sagar	SVS-15K-TP	15 kVA	280-450V/50Hz	Three	1,340
Sagar	SVS-20K-TP	20 kVA	280-450V/50Hz	Three	1,510
Sollatek	AVR3LE030, 30Amps/phase	20 kVA	294-500V/50Hz	Three	1,548
Sagar	SVS-30K-TP	30 kVA	280-450V/50Hz	Three	1,730
Sollatek	AVR3LE050, 50Amps/phase	30 kVA	294-500V/50Hz	Three	2,837

Note: This table uses United Nations (UN) exchange rates as of October 2020.

RTMDS FOR WALK-IN COLD ROOMS

RTMDs are contracted with 3 years of access to online portals for remote management and tracking of equipment performance and data fees for transmitting of data from the equipment to these servers. This access also includes features such as remote SMS alerts to registered users for temperature alarms, among other features

The table below shows prices for available products. The estimated range of installation, training and commissioning services is between USD 300 and USD 1,000. Please contact UNICEF SD if you require transportation and in-country storage of these RTMDs. Estimated data and operating costs will vary by country and product. Additional costs such as procurement agency fees are not included.

Estimated total costs of RTMDs are not included, as these will vary by country and by the SIM card selected (e.g., global vs. local); estimates for communication costs for local and global SIM cards are

provided separately. Please note most countries are expected to have costs at the lower end of the ranges provided in below table, but this should be confirmed with UNICEF Supply Division. **The values provided in CCE Budget Template include a point estimate for data/portal costs for three years and may not be reflective of the actual costs to your country** or variations between local SIM and global SIM data costs. Countries should contact UNICEF Supply Division Cold Chain Unit to obtain country-specific global SIM costs and subsequently update the RTMD total cost estimate in the budget template accordingly.

Supplier	Model	Number of WICR that can be monitored	UNICEF indicative equipment price† 1-49 units, USD	Estimated recurring fees (web portal, Global SIM card, etc) USD for 3 years	Estimated recurring fees (web portal, Local SIM card, etc) USD for 3 years
Beyond Wireless	ICE3 - MODEL BC141	1	500	1095	1005
Blulog	TDL2-5Y data logger	1	835	650 - 4315	N/A
Ikhaya	VM 1000	1	351	636 - 4618	519
Beyond Wireless	ICE3 EXTRA - MODEL BC440	2	975	1275	1185
Blulog	TDL2-5Y data logger	2	1294	650 - 4315	N/A
Ikhaya	VM 1000	2	851	636 - 4618	519
Beyond Wireless	ICE3 EXTRA - MODEL BC440	3	1350	1455	1365
Blulog	TDL2-5Y data logger	3	1752	650 - 4315	N/A

Note: This table uses United Nations (UN) exchange rates as of October 2020.

RTMDS FOR REFRIGERATORS/FREEZERS

RTMDs are contracted with 3 years of access to online portals for remote management and tracking of equipment performance and data fees for transmitting of data from the equipment to these servers. This access also includes features such as remote SMS alerts to registered users for temperature alarms, among other features

The table below shows prices for available products. The estimated range of installation, training and commissioning services is between USD 200 and USD 400. Please contact UNICEF SD if you require transportation and in-country storage of these RTMDs. Estimated data and operating costs will vary by country and product. Additional costs such as procurement agency fees are not included.

Estimated total costs of RTMDs are not included, as these will vary by country and by the SIM card selected (e.g., global vs. local); estimates for communication costs for local and global SIM cards are provided separately. Please note most countries are expected to have costs at the lower end of the ranges provided in below table, but this should be confirmed with UNICEF Supply Division.

The values provided in CCE Budget Template include a point estimate for data/portal costs for three years and may not be reflective of the actual costs to your country or variations between local SIM and global SIM data costs. Countries should contact UNICEF Supply Division Cold Chain Unit to obtain country-specific global SIM costs and subsequently update the RTMD total cost estimate in the budget template accordingly

Supplier	Model	UNICEF indicative equipment price† 1-49 units, USD	Estimated recurring fees (web portal, Global SIM card, etc) USD for 3 years	Estimated recurring fees (web portal, Local SIM card, etc) USD for 3 years
Berlinger	Fridge-tag 3	254	619 - 3315	450 -1320
Beyond Wireless	ICE3 - MODEL BC141	250	960	870
Blulog	TDL2-5Y data logger	339	650 - 4315	N/A
Haier	Haier U-Cool	101	270-450	N/A
Ikhaya	VM 1000	272	636 - 4618	519
Nexleaf	ColdTrace5	225	306	306

Note: This table uses United Nations (UN) exchange rates as of October 2020.

STANDARD COLD BOXES

This device is a larger, portable, insulated container. It is used for transportation between sites, storage during immunisation sessions and multi-day outreach activities, and campaigns.

Coolant pack standardization should be considered if multiple cold boxes are used. Before purchasing, consider the maximum acceptable fully loaded weight, durability, shape/size and how long vaccines stay cold/ cool when used with ice packs or cool water packs.

Supplier	Model	Vaccine storage capacity L	Weight fully loaded (kg)	Cold life at +43°C (days)	Coolant packs (L)	UNICEF indicative price 50 units USD	UNICEF indicative price 100 units, USD
Vaccine storage capacity, 5-15L							
APEX	AICB156L	5.5	22.3	4.5	0.6	74	74
B Medical	RCW8	6.0	16.4	2.4	0.3 & 0.6	336	311
AOV	ACB264SL	6.0	16.0	5.5	0.4	81	76
Nilkamal	RCB264SL	6.0	27.5	4.4	0.4	62	62

Blow Kings	CB-55-CF	7.0	23.0	3.7	0.4	67	62
B Medical	RCW12	7.0	23.3	4.8	0.6	585	542
APEX	AICB243S	8.0	22.4	3.5	0.3	74	74
Blow Kings	CB-12-CF	12.0	45.0	6.5	0.4	83	81
Nilkamal	RCB324SS	15.0	33.9	2.2	0.4	48	48
Vaccine storage capacity, >15L							
Nilkamal	RCB246LS	16.0	34.8	3.0	0.6	62	62
APEX	AICB444L	18.0	49.0	5.8	0.4	95	95
AOV	ACB503L	18.0	46.0	5.3	0.3	107	100
B Medical	RCW25	20.0	38.9	5.6	0.6	487	475
Nilkamal	RCB444L-A	20.3	49.7	6.3	0.4	83	83
APEX	AICB503L	22.5	48.0	5.3	0.3	95	95
Blow Kings	CB-20-CF	24.0	49.5	5.8	0.4	108	98

Note: This table uses United Nations (UN) exchange rates as of October 2020.

FREEZE-PREVENTIVE COLD BOXES

This device is a larger, portable, insulated container that has freeze-preventive technology and does not require ice pack conditioning. It is used for transportation between sites, storage during immunisation sessions and multi-day outreach activities, and campaigns.

Coolant pack standardization should be considered if multiple cold boxes are used. Before purchasing, consider the maximum acceptable fully loaded weight, durability, shape/size and how long vaccines stay cold/ cool when used with ice packs.

The table below includes current freeze-preventive cold boxes, as these are not currently reflected in the CCEOP Technology Guide (as of November 2020).

Supplier	Model	Vaccine storage capacity L	Weight fully loaded (kg)	Cold life at +43°C (days)	Coolant packs (L)	UNICEF indicative price 50 units USD	UNICEF indicative price 100 units, USD
Leff	FFCB-15L	15.4	49.9	4.4	0.6	258	~~234~~239

STANDARD VACCINE CARRIERS

This device is an insulated container that is used to transport and store vaccines for immunisation sessions. Available standard vaccine carriers can carry vaccine capacities between 0.8L to 3.4L.

Coolant pack standardisation should be considered if multiple carriers are used. Before purchasing, consider the maximum acceptable fully loaded weight, durability, shape/size and how long vaccines stay cold/cool when used with ice packs or cool water packs.

Supplier	Model	Vaccine storage capacity L	Weight fully loaded (kg)	Cold life at +43°C (days)	Coolant packs (L)	UNICEF indicative price 100 units USD	UNICEF indicative price 1,000 units, USD
Vaccine storage capacity,0-2L							
AOV	ADVC24	0.8	2.2	0.8	0.4	12.62	7.95
APEX	AIDVC24	0.9	2.3	0.9	0.4	5.99	5.99
Blow Kings	VDC 24-CF	0.9	2.2	0.8	0.4	6.40	6.35
Nilkamal	BBVC23	0.9	2.4	0.7	0.3	4.78	4.78
B Medical	RCW1	1.2	7.1	1.4	0.6	125	115
Nilkamal	BCVC44-A	1.4	4.9	1.6	0.4	6.59	6.59
APEX	AIVC44 LR	1.7	4.3	1.5	0.4	9.40	9.40
Blow Kings	BK-VC 1.7-CF	1.7	4.0	1.6	0.4	7.99	7.50
Vaccine storage capacity, >2L							
AOV	AVC46	2.5	6.4	2.1	0.6	16.80	12.95
Blow Kings	BK-VC 2.6-CF	2.6	4.5	1.8	0.6	13	11.10
Nilkamal	BCVC46	2.7	6.4	1.9	0.6	8.72	8.72
APEX	AIVC46	2.9	5.4	2.1	0.6	12.05	12.05
B Medical	RCW4	3.0	7.3	1.3	0.3 & 0.6	268	253
Blow Kings	BK-VC 3.4-CF	3.4	4.9	1.8	0.6	15	13.75

Note: This table uses United Nations (UN) exchange rates as of October 2020.

COOLANT (WATER) PACKS

If additional coolant packs are required in addition to those that come with the vaccine carrier or cold box, countries can select additional coolant packs from below. Coolant pack standardisation should be considered if multiple vaccine carriers or cold boxes are used.

Supplier	Model	UNICEF indicative price 1,000 units USD	UNICEF indicative price 10,000 units, USD
Ice packs: 0.3L			
AOV	AIP3	0.87	0.25
APEX	AIIP03	0.30	0.29
Blow Kings	BK V4H	0.30	0.28
Nilkamal	BIP-3	0.20	0.20
B Medical	Icepack 0.3L	46 (set of 40)	46 (set of 40)
Ice packs: 0.4L			
AOV	AIP4	0.87	0.26
APEX	AIIP04	0.31	0.30
Blow Kings	BK 4	0.30	0.28
Nilkamal	BIP-4	0.20	0.20
Ice packs: 0.6L			
AOV	AIP6	1.23	0.35
APEX	AIIP06	0.42	0.41
Blow Kings	BK 6	0.49	0.39
Nilkamal	BIP-6	0.30	0.30
B Medical	Icepack 0.6L	34 (set of 24)	34 (set of 24)

Note: This table uses United Nations (UN) exchange rates as of October 2020.