



DATA TO SUPPORT SELF-SUSTAINMENT RATES FOR MEDICAL MODULES ADDED TO THE COE MANUAL (2014 AND 2017)

Secretariat Issue Paper #13 - Mandated Study

Issue Paper Theme: **Medical**

BACKGROUND

The last three editions of the COE manual have seen the inclusion of additional medical capabilities, primarily designed to enhance hospital facilities. At the time of their establishment there was no previous experience with these modules to establish a reimbursement rate based upon actual usage. The purpose of this paper is to provide detail on the deployment and usage of these capabilities from which a definitive reimbursement rate can be established.

DETAILED PROPOSAL

During the 2020 COE WG, the Secretariat was requested to analyze the work of selected deployed medical capabilities first included in the 2014 and 2017 COE Manual, to establish an equitable reimbursement rate for these capabilities. Selected capabilities are (as listed in the 2020 version of the COE Manual) were the:

- Aeromedical Evacuation Module (Ch 3, Annex C, Appendix 10);
- Orthopaedic Module (Ch 3, Annex C, Appendix 13);
- Physiotherapy Module (Ch 3, Annex C, Appendix 14); and
- Internal Medicine Module (Ch 3, Annex C, Appendix 15)

AMET:

Although not organic to Level 2 and Level 3 facilities as articulated in the 2020 COE Manual, since 2017 these facilities routinely deploy with at least one Aeromedical Evacuation Module; hereafter referred to as an Aeromedical Evacuation Team (AMET). There are currently 27 AMET deployed.

The COE Manual articulates the AMET equipment requirements but does not provide detailed guidance on the medical consumables and pharmaceuticals to be provided. Consequently, there is no standard UN list of what TCCs are required to provide. A comprehensive TCC consumable/pharmaceutical list, assessed as being appropriate for the role is at Annex A. The fair market value for this material is \$7,113.27 based on the provision of two complete sets of equipment and pharmaceuticals per AMET. Missions do not routinely record the pharmaceuticals and consumables used during evacuation specifically for stockkeeping / audit purposes. They do record drugs administered as part of the clinical record. TCC AMET were asked to assess the usage of these items during CASVAC operations in the previous three months to provide a 'baseline' for consumption. These were analyzed by UNHQ clinical staff to normalize variation to generate a standardized cross mission consumption. These are listed in Annex A. A typical cost per casualty by Category is:

Category A - \$397.33 (USD).

Category B – \$161.26 (USD)



Category C - \$24.58 (USD)

The number of Casualty evacuations conducted by each of these teams varied widely (from nil to 30) and there is not a simple correlation between TCC provided AMET and the number of casualties evacuated within a mission. In MINUSMA (Mali), for example, most casualties are evacuated by commercially contracted AMET using their own aircraft or on 'national asset' TCC aircraft for which there is no reimbursement. The typical number of CASEVAC cases managed by each TCC AMET is approximately 12 per year (Cat A x 4; Cat B x 4 Cat C x 4) expending medical materiel to a value of \$2332.68 (USD) per year or \$194.39 per month.

All medical consumables and pharmaceuticals have a defined expiry date, which will vary between items. A random selection of consumables and pharmaceuticals suggested an average shelf life (production to expiry) of 54 months. Based on a liner turnover of materiel, some \$131.73 of stock will be written off each month, in addition to that consumed.

Accordingly, the self-sustainment rate for the AMET can be calculated as follows:

Cost of consumables for the AMET: \$7,113.27

Normal shelf life of consumables is 54 months.

Assuming linear expense to replace consumables over the 54 months then monthly replacement cost would be: \$7113.27 / 54 months = \$131.73 per month.

Typical number of CASEVAC cases per year is 11, comprising 4 x CAT A (4 x \$397.33 = \$1,589.32); 4 x CAT B (4 x \$161.26 = \$645.04); and 4 x CAT C (4 x \$24.58 = \$98.32) for a total of \$2,332.68

12 x CASEVAC per year at a cost of \$2,332.68 results in: \$2,332.68 / 12 month = \$194.39 per month.

Total cost of CASEVAC and replacements of consumables is therefore: \$131.73 per month (consumables) plus \$194.39 (CASEVACs) = \$326.12 per month.

Assume the Level 2 is attached to has a dependency of 1500 personnel, the self-sustainment rate would be \$326.39 / 1500 personnel = \$0.22 per person supported.

Orthopaedic Module:

Six Orthopaedic Modules are currently deployed, additionally, the Level 3 facility in MONUSCO (Goma) has an organic orthopaedic capability.

Orthopaedic Modules are not stand-alone and will always be an additional capability to Level 2 or 3 medical facility. Consequently, there is no requirement for additional equipment associated with the delivery of peri-operative and post-operative care that is not already resident in these facilities. Therefore, only consumables specifically required by the orthopaedic team has been costed. The most comprehensive list of orthopaedic consumables is at Annex B and is valued at \$15,387.26 (USD).

Unlike other medical consumables, the consumable products used by an orthopaedic surgical consists mainly of hard engineered items – such as bone plates – that do not have a short shelf life and are sterilised prior to use. Typically, they are removed from use because of changes in clinical practice rather than reaching a pre-defined end-of-life. Consequently, turnover of stock on this basis is estimated on a liner 120-month basis, suggesting a requirement to turnover up to \$128.23 (USD) in stock per month. This calculation is based on a linear turnover of \$15,387.26 (consumables) over 120-month period, therefore \$15,387.26 / 120 months = \$128.23 per month.

Currently, six Orthopaedic Modules are deployed and there is an orthopaedic capability organic to the Level 3 hospital in MONUSCO. The workload of the Orthopaedic Modules varied from mission to missions. During 2021 orthopaedic teams performed from as few as four (all minor) procedures to 128 (20 major and 108 minor). Across the six deployed Orthopaedic Teams, a 'typical' workload during 2020 and 2021 was approximately 30 procedures, with approximately eight being 'major' and conducted under general anaesthetic. This would equate to 15 procedures per year with 4 being major and 11 being minor. The most common types of major and minor procedure



are listed in Table 1.

Most Common Major Orthopaedic procedures	Most Common Minor Orthopaedic procedures
Open reduction & internal fixation using Plates & screws	Closed reduction & cast application
Open Reduction & internal fixation using Kirschner wires	Splinting using support slab/ cast application
Wound debridement & external fixator application	Reduction of joint dislocations

Table 1. Three Most Common Major and Minor Orthopaedic Procedures 2020/2021

Orthopaedic Module teams were asked to estimate the typical consumable usage during major and minor procedures. This is inevitably subjective due to national and individual preferences during surgical intervention. These are listed in Annex B. At typical major procedure required the expenditure of consumables valued at \$489.34 (USD) and for a minor procedure \$27.00 (USD). Based on the typical annual workload of 15 procedures per year, total consumable costs for an Orthopaedic Module per month would be calculated as follows:

4 x major procedures at a cost of \$489.34 per procedure, therefore ($\$489.34 \times 4$) \$1,957.36

11 x minor procedures at a cost of \$27.00 per procedure, therefore ($\$27.00 \times 11$) \$297.00

Total cost annual cost of consumables is therefore \$1,957.36 plus \$297.00 = \$2,254.36 or \$187.86 per month.

Total cost of procedures and replacement of consumables is therefore \$128.23 plus \$187.86 for a total of \$316.09 per month.

The orthopaedic Module would normally be attached to an existing Level 2 hospital servicing a Sector within a Mission or 4000 personnel. Accordingly, the self-sustainment rate the Orthopaedic module would be $\$316.09 / 4000 = \0.08 per person supported

Physiotherapy Module:

The Physiotherapy Module was added to the 2017 Manual as a separate capability. At the same time, the requirement for a physiotherapist was removed from the Orthopaedic Module. This added flexibility and allowed the delivery of a physiotherapist down to Level 1, without the need for a full orthopaedic capability. A Physiotherapy Module has not yet been deployed, however, several facilities which had an Orthopaedic Module prior to 2017 have retained a physiotherapist and the consumables and consumption rates are based on these facilities experience.

Based on information provided by the two physiotherapy capabilities currently deployed as part of the orthopaedic modules, physiotherapy consumables to the value of \$2,787 USD are held as standard stock. The number of patients treated varies from around 30 to 60 patients per module per month, with the distribution between outpatients and inpatients varying from approximately 2:1 to 1:1. These teams are located in Level 2 or 3 facilities.

Estimated typical consumable consumption per month is valued at \$436.23 USD. Of note, the different scopes-of-practice internationally and the current co-location of both teams with an orthopaedic surgeon make it difficult to assess if the workload undertaken by these personnel adequately reflects that which a typical physiotherapist deployed in a primary care (Level 1) setting may expect to undertake.¹

All medical consumables and pharmaceuticals have a defined expiry date, and these will vary between items. A random selection of consumables and pharmaceuticals suggested an average shelf life (production to expiry) of 60 months. Based on a liner turnover of stock up to \$4.65 of stock will expire each month.

Combining the cost of routine consumption costs of \$436.23 USD with linear stock right off of \$4.65 per month, it

¹ A developed nation which permits high a level of independent practice deployed a physiotherapist to join an infantry Level 1 facility in Afghanistan in 2008, the workload of the two general practice doctors was reduced by nearly 60% as most soldiers presented with musculo-skeletal injuries well within the professional scope of a physiotherapist from that country. This may not be the case elsewhere.



is estimated that the consumables costs attributed to a Physiotherapy Module is \$440.88. (USD) per month. The Physiotherapy module would normally support a Mission Sector of approximately 4000 personnel. Accordingly, the self-sustainment reimbursement rate would be calculated as \$440.88 (USD) / 4000 personnel = \$0.11 (USD) per month.

Internal Medicine Module:

Since the Internal Medicine Module was added to the COE manual in 2014 none has been deployed, although internal medicine specialists have deployed to Level 1 and 2 facilities in a general-duties role. The Level 3 facility in MONUSCO (Goma, DRC) routinely includes an internal medicine specialist as one of the six 'specialists' required at Level 3 by the 2020 COE Manual.

As noted in the 2020 COE manual, internal medicine specialists do not typically require additional equipment, consumables or pharmaceuticals to that already provided at Level 2 or 3. Should there be need to deploy additional equipment this would be calculated on a case-by-case basis. Nonetheless, the addition of an Internal Medicine module to a Level 2 facility will create an impost in terms of workload and consumption of consumables.

Following discussion with Mission Chief Medical Officers (CMO) it was estimated that this would roughly equate to half of the consumption of a full Level 1 facility, and that consequently, until a more definitive figure can be calculated, following the deployment of an Internal Medicine Module, reimbursements rate should be set at 25% of that for a Level 1 facility (\$16.11 (USD)) - \$4.03 (USD) per capita per month.

PROPOSED MANUAL TEXT

Amend Chapter 8, Annex be to include the following:

<i>Aeromedical Evacuation Module</i>	<i>\$0.22</i>
<i>Orthopaedic Module</i>	<i>\$0.08</i>
<i>Physiotherapy Module</i>	<i>\$0.11</i>
<i>Internal Medicine Module</i>	<i>\$4.03</i>

FINANCIAL IMPLICATIONS

Financial implications are in accordance with the self-sustainment rates listed above.

PREVIOUS HISTORY

This issue has not been raised before except when the modules were established. There is now sufficient cumulative data to estimate sustainment costs.



AMET MODULE COST TABLE

CONSUMABLES

Ser	Item	Number Held	World Price	Total Value Items	Used in Typical Mission	Cost Per Typical Mission
1	Hand sanitizer - wipes, box of 100	2	\$2.63	\$7.00		\$0.00
2	Examination glove	200	\$0.03	\$7.00		\$0.00
3	Surgical glove - sterile	20	\$0.75	\$20.00		\$0.00
4	Face mask Box of 100	4	\$0.30	\$1.60		\$0.00
5	PPE Biohazard Set (incl face shield)	4	\$37.50	\$200.00		\$0.00
6	Covid-19 Ag Test	6	\$2.57	\$20.50	1	\$2.57
7	Bandelette - Blood sugar	8	\$2.63	\$28.00	1	\$2.63
8	Bandelette - Haemoglobin	8	\$2.63	\$28.00	1	\$2.63
9	Syringe - 2 ml (Leur Lock)	200	\$0.05	\$10.50	1	\$0.05
10	Syringe - 5 ml (Leur Lock)	200	\$0.06	\$12.00		\$0.00
11	Syringe - 10 ml (Leur Lock)	200	\$0.08	\$16.50		\$0.00
12	Syringe - 20 ml (Leur Lock)	100	\$0.13	\$12.75	2	\$0.26
13	Syringe - 50 ml (Leur Lock)	100	\$0.27	\$27.00	2	\$0.54
14	Syringe - 60 ml (Catheter spigot)	25	\$0.21	\$5.25	2	\$0.42
15	IV Cannula (16, 18,20 x 5 each)	15	\$1.35	\$27.00	2	\$2.70
16	Bite block (1/1.95 Euro)	4	\$1.82	\$9.72		\$0.00
17	ECG lead electrodes	20	\$1.00	\$26.50	3	\$2.99
18	Betadine solution 250 ml	2	\$3.38	\$9.00		\$0.00
19	IV Giving set	10	\$0.90	\$12.00	2	\$1.80
20	IV Extension set	10	\$0.43	\$5.70	2	\$0.86
21	Transfusion giving set	8	\$0.90	\$9.60	1	\$0.90
22	Nasogastric tube	12	\$1.13	\$18.00	1	\$1.13
23	Foley catheter (Sizes 10-12 FG x 2 each)	8	\$0.83	\$8.80		\$0.00
24	Urine bag, 2 litres	4	\$0.23	\$1.20		\$0.00
25	Chest drain kit - disposable	4	\$135.00	\$720.00	1	\$135.00
26	Underwater seal bottle	2	\$142.50	\$380.00	1	\$142.50
27	Endotracheal tube (Sizes 6 to 8 ID x 2 each)	10	\$2.02	\$26.90	2	\$4.04
28	HME Filter	4	\$37.50	\$200.00		\$0.00
29	Tape strapping	2	\$0.56	\$1.50	0.15	\$0.08
30	Suction catheter (18-12 FG x 2 each)	10	\$0.23	\$3.00	2	\$0.45



31	Oxygen mask with hose	4	\$0.99	\$5.28	1	\$0.99
32	Nasal cannula	4	\$1.03	\$5.48		\$0.00
33	Nasopharyngeal airway	4	\$2.25	\$12.00	1	\$2.25
34	Gauze - sterile 10x10 (sterile)	40	\$0.18	\$9.60	4	\$0.72
35	Suture (Prolene 4-0 with cutting needle)	6	\$4.50	\$36.00	1	\$4.50
36	Surgical Blade No22	4	\$8.25	\$44.00	1	\$8.25
37	Bandages Crepe	20	\$0.15	\$4.00	2	\$0.30
38	Bandages Compression	10	\$2.25	\$30.00	1	\$2.25
39	Abdominal Mops	20	\$1.79	\$47.60	3	\$5.36
40	Alcohol 70% 1 Litre bottle	1	\$1.50	\$2.00		\$0.00
41	KY gel tube electrode gel	2	\$1.13	\$3.00		\$0.00
42	Alcohol swabs box of 200	1	\$2.25	\$3.00	0.05	\$0.11
43	Tourniquet	4	\$13.50	\$72.00	1	\$13.50
				\$2,121.98		\$339.75
				\$4,243.96		\$373.73
				\$23.58		

Total Cost of Consumables: \$2,128.98 per AMET Sub Team (x 3 personnel)

Total Cost of Consumables: \$4,243.96 per AMET Full Team (x 6 personnel)

Linear monthly expired Consumables replacement cost: \$23.58 per AMET Full (x 6 personnel)*

Consumables used per Cat A Index Case: \$373.73 (Includes 10% miscellaneous premium)

Consumables used per Cat B Index Case: \$149.49 (40% of CAT A)

Consumables used per Cat C Index Case: \$18.68 (5% of Cat A)

PHARMACEUTICALS

Ser	Item	Dose	Unit Type	Number Held	Cost per item	World Price	Total Value Items	Used in Index Mission	Cost Per Index Mission
1	Adrenaline (epinephrine)	1 mg/ml	1 ml Ampoule	20	\$0.50	\$0.38	\$7.50	2	\$0.75
2	Aminophylline Injl	25mg/ml	10 ml Ampoule	8	\$1.25	\$0.94	\$7.50		\$0.00
3	Amiodarone	50 mg/ml	3 ml Vial	80	\$3.00	\$2.25	\$180.00		\$0.00



4	Anti-snake venom serum (Africa)	10 ml Vial	10 ml Vial	4	\$18.00	\$13.50	\$54.00		\$0.00
5	Aspirin Low Dose	81 mg	Tablet	100	\$0.08	\$0.06	\$6.00		\$0.00
6	Atenolol	20 mg	Tablet	28	\$0.15	\$0.11	\$3.15		\$0.00
7	Atropine	1 mg/ml	1 ml Vial	20	\$0.60	\$0.45	\$9.00	1	\$0.45
8	Calcium Gluconate 10%	10 ml	10 ml Ampoule	10	\$4.72	\$3.54	\$35.40		\$0.00
9	Dexamethasone	4 mg/ml	1 ml Ampoule	20	\$0.35	\$0.26	\$5.25		\$0.00
10	Dextrose 50%	500mg/ml	50 ml Vial	4	\$0.89	\$0.67	\$2.67		\$0.00
11	Diazepam	5 mg/ml	2 ml Ampoule	20	\$1.75	\$1.31	\$26.25		\$0.00
12	Diclofenac	25 mg/ml	3 ml ampoule	10	\$0.06	\$0.05	\$0.45		\$0.00
13	Dopamine	40 mg/ml	5 ml Vial	10	\$0.63	\$0.47	\$4.73		\$0.00
14	Ephedrine Inj	10mg/ml	5 ml Syringe	20	\$10.00	\$7.50	\$150.00		\$0.00
15	Ethamsylate	125 mg/ml	2 ml Ampoules	10	\$0.22	\$0.17	\$1.65		\$0.00
16	Fentanyl	50 Microg/ml	10 ml Vial	20	\$0.65	\$0.49	\$9.75	2	\$0.98
17	Furosemide	10 mg/ml	10 ml Vial	20	\$0.30	\$0.23	\$4.50		\$0.00
18	Human Tetanus Immunoglobulin	100 IU/ml	250 IU Vial	4	\$3.80	\$2.85	\$11.40		\$0.00
19	Hydralazine	10 mg/ml	2 ml Ampoule	10	\$5.00	\$3.75	\$37.50		\$0.00
20	Hydrocortisone	100mg	100mg Vial	10	\$0.47	\$0.35	\$3.53		\$0.00
21	Ibuprofen	400 mg	Tablet	100	\$0.03	\$0.02	\$2.25		\$0.00
22	Sodium Chloride 0.9% (IV bag)	500 ml	IV Bag/Bottle	25	\$0.70	\$0.53	\$13.13	10	\$5.25
23	Ringers Lactate (IV bag)	500 ml	IV Bag/Bottle	25	\$0.70	\$0.53	\$13.13	4	\$2.10
24	Gelatin Modified 4 % -Gelofusine (IV Bag)	500ml	IV Bag/Bottle	25	\$5.75	\$4.31	\$107.81	1	\$4.31
25	Ketamine	50 mg/ml	10 ml Vial	4	\$1.51	\$1.13	\$4.53	2	\$2.27
26	Labetalol inj	5 mg/ml	20 ml Ampoule	5	\$28.00	\$21.00	\$105.00		\$0.00
27	Lignocaine	2 %	30 ml Vial	4	\$3.25	\$2.44	\$9.75		\$0.00
28	Magnesium sulphate 10%	100mg /ml	10 ml Ampoule	4	\$2.00	\$1.50	\$6.00		\$0.00
29	Midazolam	5 mg/ml	10 ml Ampoule	20	\$1.25	\$0.94	\$18.75		\$0.00
30	Morphine	10 mg/ml	1 ml Vial	20	\$0.45	\$0.34	\$6.75	2	\$0.68
31	Naloxone	0.4 mg/ml	1 ml Vial	10	\$6.05	\$4.54	\$45.38		\$0.00
32	Nifedipine (SR)	20 mg	Tablet	100	\$1.50	\$1.13	\$112.50		\$0.00
33	Paracetamol	500 mg	Tablet	100	\$3.25	\$2.44	\$243.75		\$0.00
34	Phenobarbital	100 mg/ml	2 ml Ampoule	20	\$3.25	\$2.44	\$48.75		\$0.00
35	Phytomenadione (Vitamin K)	10mg/ml	1 ml Ampoule	8	\$2.00	\$1.50	\$12.00		\$0.00



36	Potassium Chloride	100mg/ml	10 ml Ampoule	8	\$1.00	\$0.75	\$6.00		\$0.00
37	Propofol	10 mg/ml	20 ml Vial	10	\$4.40	\$3.30	\$33.00		\$0.00
38	Rapid Insulin Inj	10 IU/ml	10 ml Vial	10	\$0.65	\$0.49	\$4.88		\$0.00
39	Salbutamol	0.5 mg/ml	1 ml Ampoule	8	\$2.90	\$2.18	\$17.40		\$0.00
40	Salbutamol spray	100 microg	200 dose inhaler	4	\$7.00	\$5.25	\$21.00		\$0.00
41	Suxamethonium chloride	50 mg/ml	2 ml Ampoule	8	\$0.45	\$0.34	\$2.70		\$0.00
42	Tramadol	50 mg/ml	2 ml Ampoule	20	\$0.09	\$0.07	\$1.35		\$0.00
43	Tranexamic Acid	100 mg/ml	5 ml Ampoule	10	\$0.80	\$0.60	\$6.00	1	\$0.60
44	Vecuronium	10 mg	10 mg Vial	8	\$5.44	\$4.08	\$32.64	1	\$4.08
							\$1,434.65		\$21.46
							\$2,869.31		\$23.60
							\$15.94		

Total Cost of Pharmaceuticals: \$1,434.65 per AMET Sub Team (x 3 personnel)

Total Cost of Pharmaceuticals: \$2,869.31 per AMET Full Team (x 6 personnel)

Linear monthly expired Pharmaceuticals replacement cost: \$15.94 per AMET Full (x 6 personnel)*

Consumables used per Cat A Index Case: \$23.60 (Includes 10% miscellaneous premium)

Consumables used per Cat B Index Case: \$11.80 (50% of CAT A)

Consumables used per Cat C Index Case: \$5.9 (25% of Cat A)

Total Cost of materiel (Pharmaceuticals + Consumables): \$7.113.27

Linear monthly expired stock replacement cost (Pharmaceuticals + Consumables): \$39.52*.

Materiel used per Cat A Index Case (Pharmaceuticals + Consumables): \$397.33

Materiel used per Cat B Index Case (Pharmaceuticals + Consumables): \$161.26

Materiel used per Cat C Index Case (Pharmaceuticals + Consumables): \$24.58



ORTHOPAEDIC MODULE COST TABLE

CONSUMABLES

Ser	Item	Amount Required	Cost per Item	Total Value of Items	Major Procedure Usage	Major Procedure Cost	Minor Procedure Usage	Minor Procedure Cost
1	3.5mm self-taping screw (TP)	40	\$3.01	\$120.24	6	\$18.04	4	\$12.02
2	3.5mm cortical screw (SS)	45	\$1.25	\$56.25		\$0.00		\$0.00
3	3.5mm T plate (TP)	3	\$27.56	\$78.07		\$0.00		\$0.00
4	3.5mm T plate (SS)	2	\$12.53	\$25.05		\$0.00	1	\$12.53
5	3.5mm LC/LCP	5	\$9.02	\$42.08		\$0.00		\$0.00
6	3.5mm 1/3 tubular plate (SS)	10	\$7.21	\$72.14		\$0.00		\$0.00
7	3.5 mm LC/DCP (SS)	10	\$20.84	\$208.40		\$0.00		\$0.00
8	3.5mm DCP (SS)	15	\$15.63	\$226.64		\$0.00		\$0.00
9	4.5mm calculated screw (SS)	65	\$1.90	\$123.75		\$0.00		\$0.00
10	4.5mm LC/DCP (SS)	30	\$22.15	\$664.50		\$0.00		\$0.00
11	4.5 mm cortical screw (TP)	30	\$3.51	\$105.21		\$0.00		\$0.00
12	4.5mm T plate (TP)	10	\$30.06	\$300.60	1	\$30.06		\$0.00
13	4.5mm cortical screw (SS)	115	\$1.10	\$126.75		\$0.00		\$0.00
14	4.5mm DCP (SS)	12	\$21.89	\$255.38		\$0.00		\$0.00
15	4.5mm T plate (SS)	5	\$15.03	\$75.15		\$0.00		\$0.00
16	4.5mm malleolar screw (SS)	85	\$1.80	\$153.31		\$0.00		\$0.00
17	4.5mm head locking screw (TP)	15	\$3.26	\$48.85		\$0.00		\$0.00
18	4.5mm LC/LCP narrow (SS)	10	\$13.53	\$137.52		\$0.00		\$0.00
19	4.5mm LC/LCP broad (SS)	15	\$22.55	\$338.18		\$0.00		\$0.00
20	4.5mm cortex screw (TP)	85	\$3.51	\$298.10		\$0.00		\$0.00
21	4.9 mm self tapping screw (TP)	5	\$4.26	\$21.29		\$0.00		\$0.00
22	External fixation tube (Carbon fibre)	40	\$0.13	\$5.20	2	\$0.26		\$0.00
23	4.0mm Schanz Screw (SS)	20	\$25.00	\$500.00		\$0.00		\$0.00
24	4.5mm Schanz Screw (SS)	20	\$25.00	\$500.00	3	\$75.00		\$0.00
25	5.0mm Schanz Screw (SS)	25	\$27.00	\$675.00	2	\$54.00		\$0.00
26	5.5mm Schanz Screw (SS)	25	\$27.00	\$675.00		\$0.00		\$0.00
27	6.0mm Schanz Screw (SS)	20	\$30.00	\$600.00		\$0.00		\$0.00
28	6.5mm Schanz Screw (SS)	20	\$30.00	\$600.00		\$0.00		\$0.00



29	K Nail	25	\$7.50	\$187.50	1	\$7.50	\$0.00
30	Jess fixator	5	\$9.77	\$48.85		\$0.00	\$0.00
31	Inter locking femoral Nail (SS)	45	\$19.73	\$887.71		\$0.00	\$0.00
32	Flexible pediatric nail (TENS)	10	\$3.51	\$35.07		\$0.00	\$0.00
33	Intra locking tibial nail (TP)	10	\$60.12	\$581.16		\$0.00	\$0.00
34	Supra condylar nail (SS)	10	\$66.13	\$661.30		\$0.00	\$0.00
35	Intra locking tibial nail (SS)	14	\$19.73	\$269.60		\$0.00	\$0.00
36	PHLP plate (TP)	5	\$50.10	\$250.50		\$0.00	\$0.00
37	Anatomical tibial plate	5	\$22.55	\$112.73		\$0.00	\$0.00
38	Recon plate	21	\$13.78	\$289.33		\$0.00	\$0.00
39	Hook plate	5	\$17.54	\$87.68		\$0.00	\$0.00
40	7mm CC screw (SS)	80	\$3.26	\$260.52		\$0.00	\$0.00
41	Cancellus screw 6.5mm fully threaded (SS)	130	\$2.51	\$325.65		\$0.00	\$0.00
42	PFN locking bolt 6.5mm (MM)	115	\$4.01	\$460.92		\$0.00	\$0.00
43	Cancellus screw 6.5 mm 16 mm threaded (SS)	250	\$2.51	\$626.67		\$0.00	\$0.00
44	Cancellus screw 6.5 mm 32 mm threaded (SS)	90	\$2.51	\$225.45		\$0.00	\$0.00
45	Locking bold 4.5mm (SS)	90	\$1.10	\$99.20		\$0.00	\$0.00
46	DHS plate	15	\$16.29	\$244.28		\$0.00	\$0.00
47	PFN locking bold 7.5mm (SS)	50	\$5.01	\$250.50		\$0.00	\$0.00
48	Cancellus screw 4mm (SS)	120	\$1.20	\$144.29		\$0.00	\$0.00
49	DHS screw (SS)	10	\$5.51	\$55.11		\$0.00	\$0.00
50	Distal Femoral Locking Plate (TP)	5	\$60.12	\$300.60		\$0.00	\$0.00
51	External Fixator Locking Clamps Various Sizes	30	\$35.00	\$1,050.00	4	\$140.00	\$0.00
52	External Fixator Pin Rod Coupling	30	\$30.00	\$900.00	4	\$120.00	\$0.00
				\$15,387.26		\$444.86	\$24.55
						\$489.34	\$27.00

Total Cost of Consumables: \$15,387.26 per Orthopaedic Team.

Consumables used per Major Index Case: \$489.34 (Includes 10% miscellaneous premium)†.

Consumables used per Minor Index Case: \$27.00 (Includes 10% miscellaneous premium)†.

Note these consumables do not have a determined shelf life provided they are stored and sterilised correctly.



† As orthopaedic modules do not operate independently but are attached to Level 2 or 3 facilities, pharmaceutical costs etc are included within the general reimbursement figure for these facilities.



PHYSIOTHERAPY MODULE COST TABLE

Ser	Item	Amount Required	Cost Per Item	Total Value of Items	Monthly Usage	Monthly Cost
1	Lumbar Sacral Belt	100	\$8.00	\$800.00	8	\$64.00
2	Arm Sling Pouch	50	\$5.00	\$250.00	8	\$40.00
3	Shoulder Immobiliser	20	\$10.00	\$200.00		\$0.00
4	Cot Finger Splint	20	\$3.00	\$60.00	3	\$9.00
5	Frog Splint	20	\$3.50	\$70.00	4	\$14.00
6	Wrist/Forearm splint	20	\$3.80	\$76.00	6	\$22.80
7	Ankle Brace	30	\$6.80	\$204.00	2	\$13.60
8	Knee Support (soft pad type)	20	\$4.50	\$90.00	10	\$45.00
9	Functional Knee Brace	15	\$15.00	\$225.00	3	\$45.00
10	Elbow Brace Support	6	\$12.50	\$75.00	4	\$50.00
11	Cervical Collar (soft/foam)	20	\$3.20	\$64.00	3	\$9.60
12	Ankle Wrap	50	\$2.00	\$100.00	11	\$22.00
13	Thumb Spica Splint	10	\$4.60	\$46.00	4	\$18.40
14	Insoles	5	\$2.50	\$12.50		\$0.00
15	Metatarsal Pad (Silicone)	5	\$2.00	\$10.00	6	\$12.00
16	Crepe Bandage	300	\$0.15	\$45.00		\$0.00
17	Tubular Elastic Bandage (Tubigrip) Sizes B, C, D, E (3 of each size) 10M box.	12	\$20.00	\$240.00	1	\$20.00
18	Gamgee Roll	50	\$0.50	\$25.00		\$0.00
19	Diclofanic Gel 50g	100		\$0.00	10	\$0.00
20	ECG Jelly	25	\$3.00	\$75.00	2	\$6.00
21	Hand Sanitiser	50	\$2.00	\$100.00	2	\$4.00
22	Face Masks box of 100	5	\$0.40	\$2.00	0.3	\$0.12
23	Examination Gloves Box of 100	5	\$3.50	\$17.50	0.3	\$1.05
				\$2,787.00		\$396.57
				\$4.65		436.23



Total Cost of Consumables: \$2.787.00 per Physiotherapy Team.

Linear monthly stock replacement cost: \$4.65 per Physiotherapy Team*.

Consumables used per Team per Month: \$436.23 (Includes 10% miscellaneous premium).

*Linear consumption for replacement of unused expired stock is based on a nominal five-year shelf life for items. Therefore, every month a nominal value of 1:60 of the stock will expire if none were used. However, some stock will be consumed in normal patient care. For Teams likely to have relatively low stock turn over (AMET and Orthopaedic) it is assumed up to 30% of stock will have to be written-off and replaced over time without use. In the case of high turnover teams (physio) a 10% figure is used.