



Supporting Information

Supplementary methods and results

This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.

Appendix to: McAlister S, Barratt AL, Bell KJL, McGain F. Life cycle assessment inventory: pathology testing. *Med J Aust* 2020; doi: 10.5694/mja2.50583.

Table 1. Life cycle assessment inventory: pathology testing

	Material	Mass
Phlebotomy		
Nitrile gloves	Synthetic rubber	3.3 g
Cotton swab	Cotton	0.54 g
Tube holder including needle (full blood examination, coagulation, urea/electrolytes, C-reactive protein)	Polypropylene	2.9 g
	Polyethylene terephthalate	1.5 g
	Stainless steel	0.05 g
Gold top collection tube (urea/electrolytes, C-reactive protein)	Polyethylene terephthalate	5.9 g
	Polypropylene	1.0 g
	Synthetic rubber	1.3 g
Light blue top collection tube (coagulation)	Polydimethylsiloxane	0.5 g
	Polypropylene	1.0 g
	Polyethylene terephthalate	5.0 g
Purple top collection tube (full blood examination)	Synthetic rubber	1.3
	Citric acid	0.2 g
	Polypropylene	0.9 g
safePICO syringe (arterial blood gases)	Polyethylene terephthalate	3.7 g
	Synthetic rubber	1.3 g
	Polyethylene terephthalate	2.1 g
10 mL syringe (arterial blood gases)	Polypropylene	2.4 g
	Stainless steel	0.2 g
	Polypropylene	6.16 g
Pneumatic tube system	Polyethylene terephthalate	1.28 g
	Synthetic rubber	0.49 g
	Electricity	1.2 Wh
Testing		
<i>Full blood examination</i>		
Electricity	Electricity	1.2 Wh
Packaging	Low density polyethylene	0.4 g
	High density polyethylene	0.1 g
Reagent	Cardboard	1.7 g
	Fine chemical	649 µg
	Ultrapure water	38.6 mL
<i>Coagulation profile</i>		
Electricity	Electricity	2.45 Wh
Packaging	Glass	0.4 g
	High density polyethylene	0.01 g
	Polystyrene	0.02 g
	Low density polyethylene	0.02 g
	Paper	0.03 g
Reagent	Cardboard	0.3 g
	Fine chemical	19 µg
	Ultrapure water	0.4 mL
<i>Urea/electrolytes</i>		
Electricity	Electricity	2.88 Wh
Packaging	High density polyethylene	2.0 g

	Material	Mass
Reagent	Polypropylene	2.0 g
	Glass	0.05 g
	Cardboard	0.06 g
	Fine chemical	10.7 µg
	Ultrapure water	0.2 mL
<i>C-reactive protein</i>		
Electricity	Electricity	0.5 Wh
	High density polyethylene	1.7 g
Packaging	Polypropylene	1.1 g
	Glass	0.02 g
	Cardboard	0.01 g
Reagent	Fine chemical	5.4 µg
	Ultrapure water	0.151 mL
<i>Arterial blood gas</i>		
Electricity	Electricity	19.56 Wh
Packaging	Polypropylene	0.605 g
Reagent	Fine chemical	4.4 µg
	Ultrapure water	4.3 mL

Table 2. Number of tests performed per day in each health service

Test	Austin Health	Sunshine Hospital
Full blood examination	423	392
Coagulation profile	111	81
All biochemistry tests	6331	1719
Arterial blood gases	49	80