




**WERF EPHeCt Standard Operating Procedures:  
Collection, processing, and storage of blood specimen**

	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>• Timing: before pre-med.</li> <li>• Fasting <math>\geq</math> 10 hours.</li> <li>• Label collection tubes with 2D barcode and human readable labels.</li> <li>• 8-10 gentle inversions of the tube then place upright in a rack.</li> </ul>	<ul style="list-style-type: none"> <li>• Record whether sample is collected before or after pre-med/after anaesthesia.</li> <li>• Record the time of fasting.</li> <li>• Label collection tubes with human readable labels.</li> <li>• 8-10 gentle inversions of the tube then place upright in a rack.</li> </ul>
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>• Temp: Within 1 hr <math>\rightarrow</math> keep at room temperature. 1hr- max. 4hr <math>\rightarrow</math> keep on wet ice/in refrigerator.</li> <li>• Prioritize EDTA then SST collection then others.</li> <li>• Centrifuge: 10 min.* 2500g * 4°C</li> </ul>	<ul style="list-style-type: none"> <li>• Temp: Within 2 hr <math>\rightarrow</math> keep at room temperature. 2hr- max.4hr <math>\rightarrow</math> keep on wet ice/in refrigerator</li> <li>• No priority given.</li> <li>• Centrifuge: 10 min.* 2500g * RT.</li> </ul>
<b>Storage</b>	<p><b>Within max. 1 hour at LN<sub>2</sub> freezer</b></p> <p><i>Plasma/serum</i> <math>\rightarrow</math> Gently aspirate the supernatant.</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket vials.</li> <li>• Aliquot on wet ice in upright position.</li> <li>• Aliquot volume: 100-500<math>\mu</math>l.</li> </ul> <p><i>WBCs</i> <math>\rightarrow</math> Gently aspirate the buffy coat.</p> <ul style="list-style-type: none"> <li>• Follow the same steps as for the supernatant.</li> </ul> <p><i>RBCs</i> <math>\rightarrow</math> Gently mix RBCs then aspirate</p> <ul style="list-style-type: none"> <li>• Follow aliquoting steps as for the supernatant.</li> </ul>	<p><b>Within max. 4 hours at -80°C freezer</b></p> <p><i>Plasma/serum</i> <math>\rightarrow</math> Gently aspirate the supernatant.</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket vials.</li> <li>• Aliquot at room temp in upright position</li> <li>• Aliquot volume: 100-500<math>\mu</math>l.</li> </ul> <p><i>WBCs</i> <math>\rightarrow</math> Gently aspirate the buffy coat.</p> <ul style="list-style-type: none"> <li>• Follow the same steps as for the supernatant.</li> </ul> <p><i>RBCs</i> <math>\rightarrow</math> Gently mix RBCs then aspirate</p> <ul style="list-style-type: none"> <li>• Follow aliquoting steps as for the supernatant.</li> </ul>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p>  </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p> </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>• Store sample aliquots in separate freezers.</li> <li>• Alarm system setup on all freezers.</li> <li>• Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>• Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>• Record any freeze-thaw cycles.</li> <li>• Track change in sample location or consumption.</li> <li>• Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>• Time of last eating/drinking except plain water.</li> <li>• Date/time of sample collection.</li> <li>• Start time of sample processing.</li> <li>• Number/volume/type of aliquots.</li> <li>• Date/time aliquot storage.</li> <li>• Record variations or deviations of the sample character.</li> <li>• Log of any freeze-thaw of aliquots.</li> <li>• Biweekly log of freezer check.</li> </ul>	


**WERF EPHeC Standard Operating Procedures:  
Collection, processing, and storage of urine specimen**

	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>• A clean catch mid-stream first morning void urine when they get out of bed in a sterile container.</li> <li>• Put in a refrigerator and deliver in an ice pack to the clinic (4°C).</li> <li>• Record the time of fasting</li> <li>• Record time of first morning void and whether the participant urinated during the night.</li> <li>• Label collection tubes with 2D barcode and human readable labels.</li> </ul>	<ul style="list-style-type: none"> <li>• A clean catch spot urine sample from the patient in the clinic or at the patient's home in a sterile container.</li> <li>• Put in refrigerator and deliver in an ice pack, if collected in clinic directly put on wet ice (4°C).</li> <li>• Record the time of fasting</li> <li>• Record time of spot urine collection.</li> <li>• Label collection tubes with human readable labels.</li> </ul>
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>• Within 2 hours.</li> <li>• Discard the sample if there is blood in it.</li> <li>• Mix the sample.</li> <li>• Perform dipstick urinalysis for specific gravity.</li> <li>• Centrifuge at 1000-3000g at 4°C for 5 minutes.</li> </ul>	<ul style="list-style-type: none"> <li>• Within a maximum of 48 hours.</li> <li>• Discard the sample if there is blood in it.</li> <li>• Mix the sample.</li> <li>• Perform dipstick urinalysis for specific gravity.</li> <li>• Centrifuge at 1000-3000g at 4°C for 5 minutes.</li> </ul>
<b>Storage</b>	<p><b>Within max. 2 hour at LN<sub>2</sub> freezer</b></p> <ul style="list-style-type: none"> <li>• Unprocessed sample → store in LN<sub>2</sub> freezer.</li> <li>• Processed sample → place the sample on wet ice and aspirate the supernatant into required number of aliquots → store in LN<sub>2</sub> freezer.</li> </ul>	<p><b>Within max. 48 hours at -80°C freezer</b></p> <ul style="list-style-type: none"> <li>• Unprocessed sample → store at -80°C freezer.</li> <li>• Processed sample → place the sample on wet ice and aspirate the supernatant into required number of aliquots → store at -80°C freezer.</li> </ul>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p>  </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p> </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>• Store sample aliquots in separate freezers.</li> <li>• Alarm system setup on all freezers.</li> <li>• Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>• Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>• Record any freeze-thaw cycles.</li> <li>• Track change in sample location or consumption.</li> <li>• Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>• Time of last eating/drinking except plain water.</li> <li>• Date/time of sample collection.</li> <li>• Start time of sample processing.</li> <li>• Record the results of dipstick for specific gravity.</li> <li>• Number/volume/type of aliquots.</li> <li>• Date/time aliquot storage.</li> <li>• Record variations or deviations of the sample character.</li> <li>• Log of any freeze-thaw of aliquots.</li> <li>• Biweekly log of freezer check.</li> </ul>	


**WERF EPHeCt Standard Operating Procedures:  
Collection, processing, and storage of saliva specimen**

	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>• Fasting <math>\geq 6</math> hours.</li> <li>• Rinse mouth.</li> <li>• Drooling NOT spitting.</li> <li>• No salivary stimulants.</li> <li>• 2ml Saliva (avoid bubbles).</li> <li>• Label collection tubes with 2D barcode and human readable labels.</li> </ul>	<ul style="list-style-type: none"> <li>• Brushing tooth/eating meal <math>&gt;1</math> hours.</li> <li>• Alcohol drink <math>&gt;12</math> hours.</li> <li>• Citric/sugary food <math>&gt;20</math> minutes.</li> <li>• Rinse mouth.</li> <li>• Spitting/drooling.</li> <li>• No salivary stimulants.</li> <li>• 1ml Saliva (avoid bubbles).</li> <li>• Label collection tubes with human readable labels.</li> </ul>
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>• Temp: Within 1 hr <math>\rightarrow</math> keep at RT.  <math>&gt;1</math>hr <math>\rightarrow</math> keep on wet ice/refrigerator.</li> <li>• Centrifuge: 2 min.* 1000g * 4°C</li> </ul>	<ul style="list-style-type: none"> <li>• Temp: Within 1 hr <math>\rightarrow</math> keep at room temperature.  <math>&gt;1</math>hr <math>\rightarrow</math> keep on wet ice/refrigerator.</li> <li>• Centrifuge: 2 min.* 1000g * 4°C</li> </ul>
<b>Storage</b>	<p><b>Within max. 4 hour in LN<sub>2</sub> freezer</b>            Unprocessed sample <math>\rightarrow</math> store in LN<sub>2</sub> freezer.            Gently aspirate the supernatant</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket.</li> <li>• Aliquoting on wet ice in upright position.</li> </ul> <p><i>Saliva for RNA extraction:</i></p> <ul style="list-style-type: none"> <li>• Use RNA-stabilised aliquots and proceed as described in the product manual.</li> </ul>	<p><b>Stored at -80°C freezer.</b>            Unprocessed sample <math>\rightarrow</math> store at -80°C freezer.            Gently aspirate the supernatant.</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket.</li> <li>• Aliquot at room temperature in upright position.</li> </ul> <p><i>Saliva for RNA extraction:</i></p> <ul style="list-style-type: none"> <li>• Use RNA--stabilised aliquots and proceed as described in the product manual.</li> <li>• Record time from sample collection to storage.</li> </ul>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Centre:            Participant ID:            Aliquot ID:            Sampling date:            Sample type:   </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content;">           Centre:            Participant ID:            Aliquot ID:            Sampling date:            Sample type:         </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>• Split samples on two separate freezers.</li> <li>• Alarm system setup on all freezers.</li> <li>• Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>• Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>• Record any freeze-thaw cycles.</li> <li>• Track change in sample location or consumption.</li> <li>• Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>• Time of last eating/drinking except plain water.</li> <li>• Record last tooth brushing/citrus or sugary food/alcohol intake.</li> <li>• Date/time of sample collection.</li> <li>• Start time of sample processing.</li> <li>• Number/volume/type of aliquots.</li> <li>• Date/time aliquot storage.</li> <li>• Record variations or deviations of the sample character.</li> <li>• Log of any freeze-thaw of aliquots.</li> <li>• Biweekly log of freezer check.</li> </ul>	

**WERF EPHeCt Standard Operating Procedures:  
Collection, processing, and storage of endometrial fluid specimen**


	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>• Timing: before pre-med.</li> <li>• Use embryo catheter/Pipelle.</li> <li>• Label collection tubes with 2D barcode and human readable labels.</li> </ul>	<ul style="list-style-type: none"> <li>• Record whether sample is collected before or after pre-med/anaesthesia.</li> <li>• Use embryo catheter/Pipelle.</li> <li>• Label collection tubes with human readable labels.</li> </ul>
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>• Centrifuge at 4°C for your Lab adapted SOP.</li> </ul>	<ul style="list-style-type: none"> <li>• Centrifuge at room temperature for your Lab adapted SOP.</li> </ul>
<b>Storage</b>	<p><b>Store at LN<sub>2</sub> freezer</b></p> <p>Unprocessed sample → store in LN<sub>2</sub> freezer. The supernatant → gently aspirate:</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket</li> <li>• Aliquot on wet ice and in upright position</li> </ul> <p>The pellet → use screw-top Gasket</p>	<p><b>Store at -80°C freezer</b></p> <p>Unprocessed sample → store at -80°C freezer. The supernatant → gently aspirate:</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket</li> <li>• Aliquot at room temperature and in upright position</li> </ul> <p>The pellet → use screw-top Gasket</p>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p>  </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p> </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>• Store aliquots in separate freezers.</li> <li>• Alarm system setup on all freezers.</li> <li>• Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>• Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>• Record any freeze-thaw cycles.</li> <li>• Track change in sample location or consumption.</li> <li>• Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>• Time of last eating/drinking except plain water.</li> <li>• Date/time of sample collection.</li> <li>• Start time of sample processing.</li> <li>• Number/volume/type of aliquots.</li> <li>• Date/time aliquot storage.</li> <li>• Record variations or deviations of the sample character.</li> <li>• Log of any freeze-thaw of aliquots.</li> <li>• Biweekly log of freezer check.</li> </ul>	

**WERF EPHeCt Standard Operating Procedures:  
Collection, processing, and storage of peritoneal fluid specimen**

	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>• Timing: after anaesthesia.</li> <li>• Sample collection is performed by 20ml suction devices /laparoscopic needle.</li> <li>• If no PF→ peritoneal lavage with 20ml normal saline (use the pellet, discard the supernatant).</li> <li>• Labelling → Standard: Human readable and 2D barcode labels → Minimum: Human readable label</li> </ul>	
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>• Transfer to the lab within 30 minutes.</li> <li>• Centrifuge at 4°C.</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer to the lab as soon as possible.</li> <li>• Centrifuge at room temperature.</li> </ul>
<b>Storage</b>	<p style="text-align: center;"><b>Store at LN<sub>2</sub> freezer</b></p> <p>The supernatant → gently aspirate:</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket</li> <li>• Aliquot on wet ice and in upright position.</li> </ul> <p><i>Discard the supernatant if peritoneal lavage!</i> The pellet→ use screw-top gasket</p>	<p style="text-align: center;"><b>Store at -80°C freezer</b></p> <p>The supernatant → gently aspirate:</p> <ul style="list-style-type: none"> <li>• Use screw-top gasket</li> <li>• Aliquot at room temperature and in upright position</li> </ul> <p><i>Discard the supernatant if peritoneal lavage!</i> The pellet→ use screw-top gasket</p>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p>  </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p> </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>• Store aliquots in separate freezers.</li> <li>• Alarm system setup on all freezers.</li> <li>• Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>• Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>• Record any freeze-thaw cycles.</li> <li>• Track change in sample location or consumption.</li> <li>• Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>• Time of last eating/drinking except plain water.</li> <li>• Date/time of sample collection.</li> <li>• Start time of sample processing.</li> <li>• Number/volume/type of aliquots.</li> <li>• Date/time aliquot storage.</li> <li>• Record variations or deviations of the sample character.</li> <li>• Log of any freeze-thaw of aliquots.</li> <li>• Biweekly log of freezer check.</li> </ul>	

**WERF EPHect Standard Operation Procedures:**

**Collection, processing, and storage of menstrual effluent (blood) specimen**

	<b>Standard collection</b>	<b>Required minimum</b>
<b>Specimen collection</b>	<ul style="list-style-type: none"> <li>Collect menstrual effluent sample with a diaphragm or mixing cannula.</li> <li>Labelling → Standard: Human readable and 2D barcode labels → Minimum: Human readable label</li> </ul>	
<b>Specimen processing</b>	<ul style="list-style-type: none"> <li>Within 1 hour on wet ice.</li> <li>For plasma → use EDTA tubes on wet ice.</li> <li>For cells → use heparin tubes on wet ice.</li> <li>Centrifuge: 10 min.* 2500g * 4°C</li> </ul>	<ul style="list-style-type: none"> <li>Within 1 hour at room temperature</li> <li>For plasma → use EDTA tubes on wet ice.</li> <li>For cells → use heparin tubes on wet ice.</li> <li>Centrifuge: 10 min.* 2500g * 4°C</li> </ul>
<b>Storage</b>	<p><b>Within max. 1 hour</b></p> <p>Unprocessed sample → store in LN<sub>2</sub> freezer. <i>For Plasma/serum</i> → gently aspirate the supernatant</p> <ul style="list-style-type: none"> <li>Use screw-top gasket</li> <li>Aliquot on wet ice and in upright position</li> </ul> <p><i>For cells</i> → collect at the interphase for culture or flow cytometry.</p>	<p><b>Within max. 1 hour</b></p> <p>Unprocessed sample → store at -80°C freezer. <i>For Plasma/serum</i> → gently aspirate the supernatant</p> <ul style="list-style-type: none"> <li>Use screw-top gasket</li> <li>Aliquot on wet ice and in upright position</li> </ul> <p><i>For cells</i> → collect at the interphase for culture or flow cytometry.</p>
<b>Labelling</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p>  </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Centre: Participant ID: Aliquot ID: Sampling date: Sample type:</p> </div>
<b>Freezer check</b>	<ul style="list-style-type: none"> <li>Store aliquots in separate freezers.</li> <li>Alarm system setup on all freezers.</li> <li>Biweekly human check.</li> </ul>	<ul style="list-style-type: none"> <li>Biweekly human check.</li> </ul>
<b>Sample Long-term log</b>	<ul style="list-style-type: none"> <li>Record any freeze-thaw cycles.</li> <li>Track change in sample location or consumption.</li> <li>Track new samples from original aliquots.</li> </ul>	
<b>Check list data recording</b>	<ul style="list-style-type: none"> <li>Time of last eating/drinking except plain water.</li> <li>Date/time of sample collection.</li> <li>Start time of sample processing.</li> <li>Number/volume/type of aliquots.</li> <li>Date/time aliquot storage.</li> <li>Record variations or deviations of the sample character.</li> <li>Log of any freeze-thaw of aliquots.</li> <li>Biweekly log of freezer check.</li> </ul>	