ARTIS PHYSIO PLUS

Training Checklist

SW 9.05

Trainee: ___________________________

Mentor: ___________________________
**INTRODUCTION**

**Objective:**
To provide a tool for a structured mentor based training and follow up of achievements.

Training – The Mentor explains and demonstrates the task for the trainee

Follow up – The trainee performs the task independently and the Mentor recognizes and confirms the trainee’s achievements

**Reference Documents:**
- Baxter Artis Dialysis System Quick Reference Guide (QRG) sw 9.05

**Complementing Tools:**
Training Material [Chapters 1-12]

**Important notice:**
The information in this document does not relieve any user of the Artis Physio Plus Dialysis System from his or her duty to carefully read the full text of the Artis Operator’s Manual before using the System.

**Content validation:**
Document reviewed after each new program release or annually by Global Marketing with reference to the current Operator’s Manual. Feedback regarding how this document can be improved is always welcome via your local Baxter Sales representative.
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<thead>
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<td>- Artis Dialysis System Components</td>
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<td>- Artis User Interface</td>
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<td>- Artiset Blood Tubing System and ULTRALINE HD</td>
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<td>- Heparin Administration</td>
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<td>- Isolated UF</td>
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<td>- Special Procedures in General</td>
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<td>- Special Procedures</td>
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<td><strong>C7</strong></td>
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<td><strong>C8</strong></td>
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<td>- On-line HDF in General</td>
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<td>- On-line HDF Special Procedures</td>
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<td>- On-line HDF - Volume Control</td>
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<td>- On-line HF - Volume Control</td>
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<td><strong>C12</strong></td>
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<tr>
<td>- Patient Card</td>
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<tr>
<td>- IT Connectivity</td>
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</table>
# Operator Training Assessment – Chapter 1

## C1.1 Artis Dialysis System Components

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<tbody>
<tr>
<td>a</td>
<td>Identify all external components associated with the blood path and describe the purpose of each</td>
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</tr>
<tr>
<td>b</td>
<td>Identify all external components associated with the dialysis fluid path and describe the purpose of each</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Describe the Hard Key Panel buttons</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Describe the Blood Cassette Panel</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Describe the Heparin Panel</td>
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<tr>
<td>f</td>
<td>Identify and describe the components not mentioned above</td>
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Reference: Op. Man. – Sections 1.2 and 1.3

**Notes:**

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## C1.2 Artis User Interface

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<tr>
<td>a</td>
<td>Describe the Overview Screen structure:</td>
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<tr>
<td></td>
<td>- Process Status bar</td>
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<tr>
<td></td>
<td>- Blood circuit related area, icons, buttons and value boxes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fluid circuit related area, icons, buttons and value boxes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Blood and Fluid Paths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Status Message Bar</td>
<td></td>
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<tr>
<td></td>
<td>- Message and Alarm Area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- System Icon Area</td>
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<tr>
<td></td>
<td>- The NavPad</td>
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</table>

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4  Training Checklist Corresponding to Training Chapters 1-12
### C1.2 Artis User Interface

<table>
<thead>
<tr>
<th></th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
</table>
| b | Describe the Overview Screen Button Bar structure and type of buttons:  
- Central Button  
- Function Button  
- Command Button  
- Action Button – Action Indicator Lights | | |
| c | Describe the NavPad structure and recommended workflow:  
- Overview Button  
- Prescription Button  
- Blood Button  
- Fluid Button  
- Report Button | | |
| d | Describe the Set button appearance and its usability | | |
| e | Describe the Value Box appearance and how to access different value boxes along the treatment | | |
| f | Describe the different key/select pads | | |
| g | Describe the general structure of a Setting Sub-screen  
- Describe two ways to access a Sub-screen  
- Describe how to set and activate a Function  
- Identify the different Blood and Fluid Function Icons | | |
| h | Describe the Prescription Screen usability and buttons  
- Describe how to check/change Treatment Type  
- Explain the purpose of the exclamation mark in the Treatment Parameter Select Pad  
- Describe how to set/change a Treatment Parameter, unusual prescription  
- Describe how to activate a Function  
- Explain where the respective Function Icon is displayed  
- Explain the meaning of a green lit Indication Bar in the Activated Function Select Pad  
- Describe the Time Reminder Function and its icon | | |
| i | Describe the Blood Screen usability, buttons and value boxes  
- Describe the value boxes and graphs  
- Explain the purpose of the different buttons in the Button Bar | | |
## OPERATOR TRAINING ASSESSMENT – CHAPTER 1

<table>
<thead>
<tr>
<th>C1.2</th>
<th>Artis User Interface</th>
<th>Mentor</th>
<th>Trainee</th>
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</thead>
<tbody>
<tr>
<td>j</td>
<td>Describe the Fluid Screen usability and buttons</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Describe the value boxes and graphs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explain the purpose of the different buttons in the Button bar</td>
<td></td>
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<tr>
<td>k</td>
<td>Briefly explain the Report Screen usability</td>
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**Notes:**
- Reference: Op. Man. – Sections 1.3 and 1.4

### C1.3

<table>
<thead>
<tr>
<th>Artset blood line and ULTRALINE HD</th>
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<th>Trainee</th>
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<tr>
<td>Identify on Artis HD DNL HC:</td>
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<tr>
<td>- Arterial pre-pump Infusion Lines</td>
<td></td>
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<tr>
<td>- Venous Infusion Line</td>
<td></td>
<td></td>
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<tr>
<td>- Heparin Line</td>
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<td></td>
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<tr>
<td>- Arterial and Venous Patient Lines</td>
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<tr>
<td>- Dialyzer Arterial and Venous lines</td>
<td></td>
<td></td>
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<tr>
<td>- Venous Connector</td>
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<td></td>
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<tr>
<td>- Arterial and Venous Chambers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Arterial and Venous Pressure Pods</td>
<td></td>
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<tr>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain the purpose of the ULTRALINE HD</td>
<td></td>
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<tr>
<td>c</td>
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</tr>
<tr>
<td>Identify on the ULTRALINE HD:</td>
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<td>- Ultra Line</td>
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<tr>
<td>- Fluid Line</td>
<td></td>
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<tr>
<td>- Ultra line Connector</td>
<td></td>
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<tr>
<td>d</td>
<td></td>
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<tr>
<td>Demonstrate the full ArtiSet Loading procedure</td>
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Training Checklist Corresponding to Training Chapters 1-12
C1.4 Heparin Administration

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<thead>
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<th></th>
<th>Mentor</th>
<th>Trainee</th>
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<tbody>
<tr>
<td>a</td>
<td>Explain in what phase the heparin line is automatically primed and the volume used</td>
<td></td>
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</tr>
<tr>
<td>b</td>
<td>What is the volume required for manual priming of the heparin line</td>
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<tr>
<td>c</td>
<td>Explain the importance of using the correct brand and size (diameter) syringe for the heparin administration</td>
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</tr>
<tr>
<td>d</td>
<td>Describe and explain: Linear, Intermittent and Manual heparin administration</td>
<td></td>
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<tr>
<td>e</td>
<td>Describe how to set the parameters for heparin administration</td>
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<tr>
<td>f</td>
<td>Explain the difference between Initial Dose and Bolus Dose</td>
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</tr>
<tr>
<td>g</td>
<td>Explain when heparin administration starts when Linear or Intermittent administration is activated</td>
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<tr>
<td>h</td>
<td>Explain the procedure for administering a Bolus Dose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Describe how Artis displays that the Administration Function is activated</td>
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<tr>
<td>j</td>
<td>Describe how Artis displays that heparin is administered and where the Accumulated Volume is displayed</td>
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<tr>
<td>k</td>
<td>Demonstrate the heparin syringe mounting procedure</td>
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Reference: Op. Man. – Sections 2.5 and 2.7

Notes:

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C1.4 Heparin Administration

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<td>g</td>
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<td>Explain the procedure for administering a Bolus Dose</td>
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<tr>
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<tr>
<td>k</td>
<td>Demonstrate the heparin syringe mounting procedure</td>
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Reference: Op. Man. – Section 1.3., 2.5 and 2.8

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## OPERATOR TRAINING ASSESSMENT – CHAPTER 1

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<tr>
<th>C1.5</th>
<th>Treatment Preparation and Priming</th>
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<tr>
<td>a</td>
<td>Describe check-ups before switching on the Artis</td>
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<td>b</td>
<td>Explain the importance of checking Concentrate Combination before start of Preparation Phase</td>
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<tr>
<td>c</td>
<td>Explain how to set Concentrate Combination</td>
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<td>d</td>
<td>Describe Concentrate Connection:</td>
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<td>- BiCart and A-concentrate</td>
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<td></td>
<td>- BiCart Select</td>
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<td>- BiCart Citrate</td>
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<td></td>
<td>- Central Concentrate</td>
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<td>e</td>
<td>Explain what initiates the Preparation phase and the machine actions in connection with it</td>
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<tr>
<td>f</td>
<td>Explain the importance of checking Treatment Type before loading the Blood Cassette</td>
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<td>g</td>
<td>Autoprime:</td>
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<td></td>
<td>- Describe status of all clamps before booking Autoprime</td>
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<td></td>
<td>- Demonstrate where to change Autoprime settings</td>
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<td></td>
<td>- Explain when it is possible to change the priming type</td>
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<tr>
<td></td>
<td>- Demonstrate where to change the priming type</td>
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<td></td>
<td>- Explain when Autoprime starts when booked</td>
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<tr>
<td></td>
<td>- Generally describe the priming procedure</td>
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<td></td>
<td>- Explain how Artis communicates Priming completed</td>
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<td></td>
<td>- Identify how to initiate an Extra Prime and Repeat Autoprime</td>
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Notes:


## Operator Training Assessment – Chapter 2

### C2:1 Blood Pressure Monitoring (BPM)

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<tr>
<td>a</td>
<td>Describe the ways to take a manual blood pressure on Artis</td>
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<tr>
<td>b</td>
<td>Define where the manual blood pressure measurements are displayed before and after the treatment start</td>
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<tr>
<td>c</td>
<td>Describe how to access the Blood Pressure Setting Sub-screen</td>
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<tr>
<td>d</td>
<td>Describe the Auto BPM function and its time limits</td>
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<td>e</td>
<td>Identify when the first and final automatic BPM is taken when activated</td>
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<tr>
<td>f</td>
<td>Identify the different BPM icons</td>
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<tr>
<td>g</td>
<td>Explain ways to change the blood pressure and Heart rate alarm limits</td>
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<tr>
<td>h</td>
<td>Describe ways to view BPM readings</td>
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Reference: Op. Man. – Chapter 9

Notes:

### C2:2 A/V Pressure Settings

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<tr>
<td>a</td>
<td>Identify Artis A/V pressure limits</td>
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<tr>
<td>b</td>
<td>Explain how to change the A/V pressure Treatment limits</td>
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</tr>
<tr>
<td>c</td>
<td>Describe how to adjust the A/V pressure band [window]</td>
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<tr>
<td>d</td>
<td>Identify the V pressure band limits</td>
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</tr>
<tr>
<td>e</td>
<td>Identify the A pressure band limits</td>
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<tr>
<td>f</td>
<td>Explain in what screens the A/V Close Limit button is available</td>
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Reference: Op. Man. – Section 1.7

Notes:
<table>
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<th>Mentor</th>
<th>Trainee</th>
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<tr>
<td>a</td>
<td>Explain the rationale behind the Low Consumption State and its implications</td>
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<tr>
<td>b</td>
<td>Explain how to initiate the Low Consumption State</td>
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<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain what parameters are effected</td>
<td></td>
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<tr>
<td>d</td>
<td>Explain when Artis goes into Low Consumption State and how it is displayed on the screen</td>
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<tr>
<td>e</td>
<td>Explain how to end the Low Consumption State and how to proceed</td>
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<tr>
<td>f</td>
<td>Explain the circumstances for reentering the Low Consumption State</td>
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<tr>
<td>g</td>
<td>Demonstrate how to adjust chamber fluid levels</td>
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<tr>
<td></td>
<td>- Before patient connection (after auto-prime)</td>
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<tr>
<td></td>
<td>- After patient connection</td>
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<tr>
<td>h</td>
<td>Describe the Patient Connection procedure</td>
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<tr>
<td>i</td>
<td>Venous needle</td>
<td></td>
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<tr>
<td></td>
<td>- Give details on how to prevent venous needle dislodgement</td>
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</tr>
<tr>
<td></td>
<td>- Indicate possible consequences of venous needle dislodgement</td>
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<tr>
<td>j</td>
<td>Identify how Artis detects blood and displays it</td>
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<tr>
<td>k</td>
<td>Explain why the Blood Pump stops when blood is detected</td>
<td></td>
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<tr>
<td>l</td>
<td>Explain machine actions when the Start Treatment button is pressed</td>
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<tr>
<td>m</td>
<td>Explain how Artis indicates that diffusion and UF will be automatically started</td>
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<tr>
<td>n</td>
<td>Explain machine action when respective Close and Expand AV Limits button is pressed</td>
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## OPERATOR TRAINING ASSESSMENT – CHAPTER 2

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<tr>
<th></th>
<th>Explain how to stop the UF and explain how it is displayed</th>
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</thead>
<tbody>
<tr>
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<td>Explain how to stop diffusion and explain how it is displayed</td>
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<tr>
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<td>On-line bolus</td>
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<tr>
<td></td>
<td>- Explain how to deliver an on-line bolus</td>
</tr>
<tr>
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<td>- List the on-line bolus parameters that can be set</td>
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<tr>
<td></td>
<td>- Explain the sequences of the on-line bolus delivery</td>
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<td>- Explain the blood pump behavior during on-line bolus</td>
</tr>
<tr>
<td></td>
<td>- Explain the status of the dialysis fluid and ultrafiltration after the bolus completion</td>
</tr>
<tr>
<td></td>
<td>- Demonstrate an on-line bolus</td>
</tr>
<tr>
<td>r</td>
<td>Identify where to change Blood Settings during treatment</td>
</tr>
<tr>
<td>s</td>
<td>Identify where to change Fluid Settings during treatment</td>
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Reference: Reference: Op. Man. – Chapter 3, sections 2.6 and 3.4

Notes:

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<th>C2.4</th>
<th>End of Treatment Procedure</th>
<th>Mentor</th>
<th>Trainee</th>
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<tr>
<td>a</td>
<td>Explain how to end treatment earlier than planned</td>
<td></td>
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<tr>
<td>b</td>
<td>Identify how Artis communicates end of treatment time</td>
<td></td>
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<tr>
<td>c</td>
<td><strong>Demonstrate Stop Treatment and Rinseback procedure</strong></td>
<td></td>
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</tr>
<tr>
<td>d</td>
<td>Explain where to change Rinseback settings</td>
<td></td>
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<tr>
<td>e</td>
<td>Identify where accumulated rinseback volume is displayed</td>
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<tr>
<td>f</td>
<td>Describe how to stop Rinseback before the set rinseback volume is achieved</td>
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</tr>
<tr>
<td>g</td>
<td>Describe the Empty Circuit procedure</td>
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<tr>
<td>h</td>
<td>Explain the rationale behind starting the Disinfection procedure before Unloading the blood Cassette</td>
<td></td>
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</tr>
<tr>
<td>i</td>
<td><strong>Demonstrate Blood Cassette Unloading procedure</strong></td>
<td></td>
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</tbody>
</table>

Reference: Op. Man. – Chapter 3

Notes:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
### C3:1 Ultrafilter Usage and Change

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<tr>
<th></th>
<th>Ultrafilter Usage and Change</th>
<th>Mentor</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>Briefly explain the purpose of using Ultrafilters</td>
<td></td>
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</tr>
<tr>
<td>b</td>
<td>Explain what parameters are determining filter exchange together with the different limits applied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain the “exchange reminder” function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain the effect of neglecting the Ultrafilter change limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Describe the Ultrafilter change procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Give the reason why a disinfection program always must follow the Ultrafilter change</td>
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**Notes:**

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### C3:2 Ultrafilter Usage and Change

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<th>Ultrafilter Usage and Change</th>
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<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Explain the rationale behind why the dialysis fluid circuit needs to be disinfected at least once a day or after every treatment in case of HD-Ultra/HDF/HF treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Define the two most important parameters for an effective heat disinfection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Define the two most important parameters for an effective chemical disinfection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain the rationale behind the necessity to decalcify the dialysis machine fluid circuit on a daily basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Define the active substance in CleanCart-C and its action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Define the active substance in CleanCart-A and its action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Explain the use of a pH sensor from a risk management perspective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Artis Physio Plus supporting material - code 9033346100. Software version 9.05
h. Describe the disinfection/cleaning programs:
- Heat disinfection
- Eco-Heat disinfection
- Heat disinfection with CleanCart-C
- Heat disinfection with CleanCart-A
- Chemical disinfection
- Ultra Heat disinfection with CleanCart-C
- Stand-by weekend storage
- Rinse

i. Describe how to initiate a disinfection/rinse program

j. Give the reasons why no residual test needs to be performed when using CleanCart-A and -C

k. Explain what disinfectants may be used for cleaning Artis external surfaces

l. Explain the disinfection Autostart Function

m. Explain where to find the disinfection history list

n. Explain when EvaClean cleaning/disinfection is mandatory

o. Explain Low Power mode, Display off and Main Switch Indicator

p. Describe the Disinfectant Residual Test procedure

q. Demonstrate EvaClean cleaning/disinfection procedure

r. Demonstrate the procedure for greasing the pressure pods


Notes:
## C4:1 Diascan

<table>
<thead>
<tr>
<th></th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Briefly explain the purpose of the Diascan Function</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Explain the Diascan monitoring principle</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain for what Treatments and Functions the Diascan function is available</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Describe how to set up and activate the Diascan function</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Define the Diascan measuring time intervals available</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Describe machine action when a Diascan measuring is aborted/interrupted</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Explain what parameters will be displayed if no fluid distribution volume is set</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>Define when and where clearance values are displayed</td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Explain a possible cause of a sudden drop in clearance</td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Explain the expression Depurated Volume</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Explain what parameters will be displayed when fluid distribution volume is set</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>Explain forecast Kt/V</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>Define a possible cause of a decreasing Kt/V over time</td>
<td></td>
</tr>
</tbody>
</table>

Reference: Op. Man. – Chapter 12

Notes:

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16 Training Checklist Corresponding to Training Chapters 1-12
### C4:3 Isolated UF Mentor | Trainee
---|---
a | Briefly explain the purpose of Isolated UF
b | Give details on which parameters to set in relation to the activation of Isolated UF
c | Give details on how UF Volume and treatment time should be set in regards to Isolated UF volume and time
d | Describe how Artis communicates that the Isolated UF is completed and the required actions from the operator
e | Explain where the total UF volume (Isol UF + UFV) is displayed
f | *Referenced: Op. man. – Chapter 6*

### Notes:

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### C4:2 Hemoscan Mentor | Trainee
---|---
a | Briefly explain the purpose of Hemoscan and its measuring principle
b | Explain the Hemoscan functionality
c | Describe how to handle an "Auto calibration failed" alarm
d | Define the minimum blood flow rate for measurements
e | Define the maximum hemoglobin value for measurements
f | Describe where the Hemoscan measuring values are displayed
g | Define the time it takes from treatment start until the first Hemoscan value is displayed
h | *Referenced: Op. man. – Chapter 10*

### Notes:

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## OPERATOR TRAINING ASSESSMENT – CHAPTER 5

### C5 Alarm Management and Troubleshooting

<table>
<thead>
<tr>
<th></th>
<th>Alarm Management and Troubleshooting</th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Describe the structure of the Alarm Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Describe how Artis communicates Alarms and Notifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain the purpose of SmartScan Notifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Describe how to move between the Alarm and Notification priorities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Describe the Mute icon and its progress bar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Describe how to get access to the Operator’s Message when an alarm is active</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Describe the difference between the Reset and Override buttons and define the Alarm possible to override</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>Explain the purpose of the Help button</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Demonstrate how to handle an Air in Venous Line Alarm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Explain under which circumstances the venous clamp closes making it necessary to immediately repeat the procedure to clear the Air in Venous Line Alarm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Explain how to proceed if an Air in Venous Line alarm appears during Rinseback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>Explain how to handle:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low and high Arterial Pressure Alarm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low and high Venous Pressure Alarm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>Demonstrate how to clear a Venous Pressure Alarm when the pressure is exceeding the Artis higher venous pressure limit (≥ 450 mmHg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>Describe how to proceed in case of a Malfunction Alarm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>Define where in the Operator’s Manual the Malfunction Alarm List is presented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>Define the two Malfunction Alarm Codes where a Fast Recovery Procedure should not be performed</td>
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</tr>
<tr>
<td>q</td>
<td>Describe how to proceed in case of a Safe State Alarm</td>
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</table>

Reference: Op. Man. – Section 1.3, and chapter 17
## OPERATOR TRAINING ASSESSMENT – CHAPTER 6

<table>
<thead>
<tr>
<th>C6:1</th>
<th>Special Procedures in General</th>
<th>Mentor</th>
<th>Trainee</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>Explain why the available Special Procedures differ during the different phases and different treatments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Describe how to access the Special Procedure Select Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Briefly explain the Help-on-line usability</td>
<td></td>
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</tr>
<tr>
<td>d</td>
<td>Describe how to change the Heparin syringe during treatment</td>
<td></td>
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</tr>
<tr>
<td>e</td>
<td><strong>Demonstrate the Pause Treatment procedure</strong></td>
<td></td>
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</tr>
<tr>
<td>f</td>
<td>Describe the Change Circuit procedure in HD</td>
<td></td>
<td></td>
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<tr>
<td>g</td>
<td>Demonstrate cassette repositioning</td>
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</table>

Reference: Op. Man. – Section 1.3 and chapter 7

Notes:

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20  Training Checklist Corresponding to Training Chapters 1-12
<table>
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<tr>
<th>C6.2</th>
<th>Other Special Procedures</th>
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<th>Trainee</th>
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<tr>
<td>a</td>
<td>Explain the procedure for Power Failure <em>with</em> battery back-up</td>
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<tr>
<td></td>
<td>- During Disinfection and Rinse</td>
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<td></td>
<td>- During HD treatment</td>
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<td></td>
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<tr>
<td></td>
<td>- During HDF on-line Treatment</td>
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</tr>
<tr>
<td>b</td>
<td>Explain the procedure for Power Failure <em>without</em> battery back-up (battery not charged)</td>
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</tr>
<tr>
<td>c</td>
<td>Describe the requirements for battery charging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Demonstrate the Manual Rinseback Procedure in HD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Demonstrate the Fast Recovery Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Define the Treatment Parameters and values displayed after a Fast Recovery</td>
<td></td>
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<tr>
<td>g</td>
<td>Define the Treatment Parameters and values automatically used for the continued treatment</td>
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<tr>
<td>h</td>
<td>Explain which functions are available for activation after a Fast Recovery procedure</td>
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Reference: Op. Man. – Chapter 8
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<th>Report Environment</th>
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<th>Trainee</th>
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<tr>
<td>a</td>
<td>Define the parameters typically displayed in the Report Screen Event List</td>
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<tr>
<td>b</td>
<td>Explain the events automatic recording Function and how to change the reading intervals</td>
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<tr>
<td>c</td>
<td>Explain how to do a manual snapshot</td>
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<tr>
<td>d</td>
<td>Explain the Event List Snapshot button</td>
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<tr>
<td>e</td>
<td>Explain the purpose of the Incident list</td>
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<tr>
<td>f</td>
<td>Define at what stage the treatment data collected in the Event List is erased</td>
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<tr>
<td>g</td>
<td>Explain the purpose of the buttons available in the button bar</td>
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<tr>
<td></td>
<td>- Blackbox</td>
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<td>- Hygiene button</td>
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<td>- LCD Test</td>
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<td>- Screen Cleaning</td>
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Reference: Op. Man. – Section 3.11

Notes:

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## Training Checklist Corresponding to Training Chapters 1-12

### C8 HemoControl Mentor Trainee

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<thead>
<tr>
<th></th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Explain the HemoControl treatment, the rationale behind it and the advantages for the patient</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Explain what parameters must be set for the HemoControl activation button to become available</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain how to define the Patient’s Final BV/UF Volume value to set</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain how to define the Equivalent Na to set</td>
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</tr>
<tr>
<td>e</td>
<td>Explain the purpose of the sodium band and the limits applied by the different bands</td>
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</tr>
<tr>
<td>f</td>
<td>Explain machine action when HemoControl activation button is pressed</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Explain what the calculation of the Maximum Initial UF Rate is based upon</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>Explain what the calculation of Final BV is based upon</td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Explain the changes on the HemoControl sub-screen appearing when the treatment is started</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Final BV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Max Initial UF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Final BV/UF volume</td>
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</tr>
<tr>
<td></td>
<td>- Max UF ratio</td>
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</tr>
<tr>
<td></td>
<td>- Stand-by button</td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Explain on what screen the dialysis fluid sodium concentration graph is displayed</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Describe where the plasma sodium conductivity can be followed</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>Explain when the BV% change and accumulated UF are first displayed in their respective graph</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>Explain when the Plasma Refilling Indicator and the Err. BV/UF graph indicator respectively are displayed</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>Briefly explain how the indicator displayed in the Err. BV/UF graph correlates to plasma refilling capacity</td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>Describe recommended actions and considerations before making an adjustment during the treatment</td>
<td></td>
</tr>
<tr>
<td>CB</td>
<td>HEMOCOREL</td>
<td>Mentor</td>
</tr>
<tr>
<td>----</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>p</td>
<td>Describe refilling capacity when the actual blood volume is below the optimal blood volume curve and the UF volume is lower than expected</td>
<td></td>
</tr>
<tr>
<td>q</td>
<td>Describe refilling capacity when the actual blood volume is above the optimal blood volume curve and the UF volume is lower than expected</td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>Explain why only one adjustment at the time is recommended</td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>Indicate the time it takes before the effects of an adjustment are fully visible</td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>Explain the purpose of the Stand-by button and the UFR and dialysis fluid sodium concentration applied when it is activated</td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>Describe scenarios when the HemoControl prescription should be reconsidered</td>
<td></td>
</tr>
</tbody>
</table>

Reference: Op. Man. – Chapter 11

Notes:

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Training Checklist Corresponding to Training Chapters 1-12
### C9: On-line HDF in General

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Briefly explain the purpose of On-line HDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Define the prerequisite for HDF availability (volume, pressure time, Ultra control)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Describe how to set the On-line HDF Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain why the dialysis fluid flow should be specifically considered when running HDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>On the ArtiSet PrePost identify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Arterial dialyzer line</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Venous dialyzer line</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>- Arterial Connector</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Venous Connector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Explain the purpose of the ULTRALINE HDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Identify on the ULTRALINE HDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ultra Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fluid Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Rinseback connector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>Define which line clamp must be open during the complete Autoprime process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Explain where to install the ArtiSet cassette PrePost and the ULTRALINE HDF on the blood module</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Explain when both cassettes must be installed to allow a correct loading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Explain how to route the lines of the ArtiSet cassette PrePost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>Explain how to route the Ultra Line in the Ultra clamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>Explain clamps status on all the lines before starting the Auto prime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>Explain which lines connections must be secured before starting the priming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>Demonstrate a full loading procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>Define in what phase the dialysis fluid is available for microbiological sampling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q</td>
<td>Give details about the priming/rinseback solution in on-line treatments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>Explain where the on-line priming parameters can be changed/set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>Define the HDF related value boxes displayed on the Overview screen</td>
<td></td>
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</tbody>
</table>
## C9:1 - On-line HDF in General

<table>
<thead>
<tr>
<th></th>
<th>On-line HDF in General</th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
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<tbody>
<tr>
<td>t</td>
<td>Define the HDF related value boxes displayed on the Fluid screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>Give details about an appropriate on-line bolus volume and how to set and administer it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>Explain the immediate consequences of an on-line bolus administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w</td>
<td>Describe the blood pump automatic control function, how it is displayed and explain the purpose of it</td>
<td></td>
<td></td>
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<tr>
<td>x</td>
<td>Explain the consequences of deactivating the &quot;UF&quot; and/or &quot;HDF substitution&quot; during HDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td>Explain how to proceed if a conductivity alarm appears during the Rinseback procedure</td>
<td></td>
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</tr>
<tr>
<td>z</td>
<td>Demonstrate in which screen the convection values are displayed</td>
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<tr>
<td></td>
<td>- Give details about the meaning of the convective volume and clearance</td>
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</tbody>
</table>

Reference: Op. Man. – Chapters 2, 4 and 7, section 16.2

Notes:

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26 Training Checklist Corresponding to Training Chapters 1-12
### C9.2 On-line HDF Special Procedures

<table>
<thead>
<tr>
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<th>Mentor</th>
<th>Trainee</th>
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<tbody>
<tr>
<td>a</td>
<td>Describe how to switch from HDF pressure control to HDF volume control</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Switch from Post to Pre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Describe the handling of the clamps on the Venous and Arterial connectors</td>
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</tr>
<tr>
<td></td>
<td>- Highlight that the arterial connector has been primed before connecting the Fluid Line</td>
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</tr>
<tr>
<td></td>
<td>- Highlight the need to check that the Dialyzer Arterial line is routed through the Dialyzer Arterial line guide before initiating the switch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explain how to route the Fluid Line through its guide when switching from Post to Pre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Demonstrate a full switch procedure, including the routing of the lines</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Describe how to switch from HDF to HD</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Demonstrate how to change circuit in HDF</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Describe how to switch from HDF to HD-SN</td>
<td></td>
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</table>

Reference: Op. Man. – Sections 4.4, 7.6 and 7.9

**Notes:**

### C9.3 On-line HDF - Pressure Control

<table>
<thead>
<tr>
<th></th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Briefly explain the purpose of Pressure Control mode</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Describe where to set the Pressure Time Control mode</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Explain where to check/set the TMP and the TMP upper limit respectively</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain what is controlling the Venous pump</td>
<td></td>
</tr>
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</table>

Reference: Op. Man. – Chapters 2 and 4

**Notes:**
<table>
<thead>
<tr>
<th>C9:4</th>
<th>On-line HDF – UltraControl</th>
<th>Mentor</th>
<th>Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Briefly explain the purpose of the UltraControl mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Give details on when and how to activate the automatic UltraControl feature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Define when the first automatic scan is performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- after treatment start (UltraControl activated)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- when the UltraControl function is activated during treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Define the timings for the auto scans when the Auto scan function is automatically activated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Explain how Artis communicates that a scan is on-going</td>
<td></td>
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<tr>
<td>f</td>
<td>Explain the machine actions during a scan and define what determines the decision to continue or stop the scanning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Explain how the result of a scan is displayed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>Explain when Artis performs a new Auto Scan if a scheduled Auto Scan is interrupted</td>
<td></td>
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</tr>
<tr>
<td>i</td>
<td>Describe machine actions if the blood flow is increased by more than 50 ml/min after an optimal TMP has been defined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Describe machine actions if the blood flow is decreased by more than 50 ml/min after an optimal TMP has been defined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>Describe the complete on-line bolus procedure together with the machine actions</td>
<td></td>
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</tr>
<tr>
<td>l</td>
<td>Describe how to perform a Manual scan</td>
<td></td>
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</tr>
<tr>
<td>m</td>
<td>Briefly explain the “Filtration Factor” parameter and give examples of appropriate values for on-line HDF – UltraControl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>Describe how to manually change the TMP and when it is possible to do it</td>
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</table>

Reference: Op. Man. – Sections 2.4 and 4.4

Notes:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
### C9:5 On-line HDF - Volume Control

<table>
<thead>
<tr>
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<th>Mentor</th>
<th>Trainee</th>
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<tbody>
<tr>
<td>a</td>
<td>Briefly explain the Volume Control mode</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Describe how to calculate the Substitution fluid rate</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Give details how to estimate the “Total Ultrafiltration Rate”</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Explain where to change the Substitution fluid rate</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Briefly explain the “Filtration Factor” parameter and give examples of appropriate values for on-line HDF - Volume Control</td>
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</table>

Reference: Op. Man. – Sections 2.4 and 4.4

Notes:

### C9:6 On-line HF - Volume Control

<table>
<thead>
<tr>
<th></th>
<th>Mentor</th>
<th>Trainee</th>
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<tr>
<td>a</td>
<td>Briefly explain the hemofiltration principle</td>
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<tr>
<td>b</td>
<td>Give details on how to estimate a proper “Total Ultrafiltration volume” in on-line HF</td>
<td></td>
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<tr>
<td>c</td>
<td>Briefly explain when HF treatment mode shall be selected and what are the control and dilution modes available</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Demonstrate a complete HF treatment (from the installation of the disposable till the end of the Rinseback)</td>
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<tr>
<td>e</td>
<td>Briefly explain the available Special Procedures in treatment</td>
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Reference: Op. Man. – Sections 2.4 and 4.4

Notes:

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<th>Description</th>
<th>Mentor</th>
<th>Trainee</th>
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<tr>
<td>a</td>
<td>Describe how and where to select SNDP (HD-SN)</td>
<td></td>
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</tr>
<tr>
<td>b</td>
<td>Identify the SNDP specific components on the SNDP Artiset</td>
<td></td>
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</tr>
<tr>
<td>c</td>
<td>Explain which treatment parameter except the treatment time and UFV that is necessary to set</td>
<td></td>
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</tr>
<tr>
<td>d</td>
<td>Define the appropriate fluid level in the SN Venous Expansion Chamber</td>
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<tr>
<td>e</td>
<td>Describe the SNDP cycles</td>
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</tr>
<tr>
<td>f</td>
<td>Describe where the SN pressure is measured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Define the fixed SN Minimum Pressure</td>
<td></td>
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</tr>
<tr>
<td>h</td>
<td>Define the parameter used for automatic calculation of the SN Maximum pressure</td>
<td></td>
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</tr>
<tr>
<td>i</td>
<td>Define “Stroke volume”</td>
<td></td>
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<tr>
<td>j</td>
<td>Explain where the Stroke volume is displayed and where it can be adjusted during treatment</td>
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<tr>
<td>k</td>
<td>Describe ways to adjust the Mean blood flow rate</td>
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</tr>
<tr>
<td>l</td>
<td>Describe the treatment parameters displayed on the Blood Setting screen</td>
<td></td>
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</tr>
<tr>
<td>m</td>
<td>Define the parameters that the Operator can change during the SNDP treatment</td>
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<tr>
<td>n</td>
<td>Explain why the venous pump is often running faster than the arterial pump</td>
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<tr>
<td>o</td>
<td>Explain the rationale behind the pumps running synchronously during rinseback</td>
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<tr>
<td>p</td>
<td>Demonstrate A/V Chamber Fluid Level adjustment</td>
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</tr>
<tr>
<td>q</td>
<td>Demonstrate Expansion Chamber Fluid Level adjustment</td>
<td></td>
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</tr>
<tr>
<td>r</td>
<td>Demonstrate cassette repositioning in SNDP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>Explain the possibilities to switch from SN DP to DN DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>Explain how to switch from DN DP to SN DP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>Explain what functions are available in SN DP</td>
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</tbody>
</table>

Reference: Op. Man. – Chapters 5 and 7
Notes:

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## OPERATOR TRAINING ASSESSMENT – CHAPTER 11

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<th>Trainee</th>
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<tbody>
<tr>
<td>a</td>
<td>Explain the main benefits of the absence of acetate in the dialysis fluid</td>
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</tr>
<tr>
<td>b</td>
<td>Explain the main benefits of the potassium profiling</td>
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</tr>
<tr>
<td>c</td>
<td>Explain the technique and overall set-up</td>
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<tr>
<td>d</td>
<td>Identify the specific components of evoset AFB K infusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Explain the procedure for installing and connecting Safebag KV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Explain the procedure for installing and connecting Hospasol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Demonstrate installation of the AFB K system</td>
<td></td>
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</tr>
<tr>
<td>h</td>
<td>Explain selection of the AFB K treatment mode and K profile mode</td>
<td></td>
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</tr>
<tr>
<td>i</td>
<td>Explain settings of the bicarbonate prescription</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>Explain the machine response when Dialysis Fluid or UF keys are pressed during treatment</td>
<td></td>
<td></td>
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<tr>
<td>k</td>
<td>Explain how to keep the prescription with a change in blood flow and how to change the prescription</td>
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<tr>
<td>l</td>
<td>Demonstrate AFB K simulated treatment</td>
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<tr>
<td>m</td>
<td>Explain conditions for alarm 102 and how to troubleshoot</td>
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<tr>
<td>n</td>
<td>Explain the Change Safebag special procedure</td>
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<tr>
<td>o</td>
<td>Explain the Change Hospasol bag special procedure</td>
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<tr>
<td>p</td>
<td>Explain how to adjust the level in the Infusion cassette Chamber</td>
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### OPERATOR TRAINING ASSESSMENT – CHAPTER 12

#### C12.1 | Patient Card | Mentor | Trainee
---|---|---|---
a | Describe how to configure Artis to use a Patient Prescription Card |  |  
b | Describe how to save a patient’s prescription onto a Patient Prescription Card |  |  
c | **Demonstrate how to download the patient prescription onto the machine from the Patient Prescription Card** |  |  
d | Describe how to configure Artis to use a Patient Identification Card |  |  
e | Describe how to download the patient prescription from the Exalis database |  |  

Reference: Op. Man. – Chapter 14

Notes:

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#### C12.2 | IT Connectivity | Mentor | Trainee
---|---|---|---
a | List Standard and Technologies (RHID, HL7...) |  |  
b | List the communication ports |  |  
c | **Demonstrate and describe the functions of the communication ports on the rear connectivity panel** |  |  
d | List Exalis functionalities (data collection, report, export to 3rd parties, prescription download, data storage, ...) |  |  

Reference: Op. Man. – Chapter 14

Notes:

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