

Baxter

AK 98

DIALYSIS MACHINE

Trainee: _____

Mentor: _____



AK 98

Training Checklist

Machine Introduction SW 3.xx

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Trainee:

Mentor:

Section A – Basic

Chapter	Completed	Date	Mentor	Trainee
A1				
A2				
A3				
A4				
A5				
A6				
A7				
A8				
A9				
A10				
A11				
A12				
A13				

Section B – Advanced

Chapter	Completed	Date	Mentor	Trainee
B1				
B2				
B3				
B4				

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. The Mentor and Trainee columns can be used for status progression and comments.
Completion criteria	The trainee performs the task independently and the Mentor recognizes and confirms the trainee's achievements.

Reference document	AK 98 3.xx Operator's Manual
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Important notice:

The information in this document does not relieve any user from his or her duty to carefully read the full text of the **AK 98** Operator's Manual.

Content validation:

Document reviewed after each new program release by Global Marketing - Education department 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.

Section A – Basic

1	Describe how to use the machine components relevant for machine operation and problem solving
2	Describe in detail how to navigate through the Operator's panel, displays and settings
3	Demonstrate monitoring of blood pressure, pulse rate and mean arterial pressure using the BPM feature
4	Identify and set parameters associated with the prescription for an individual treatment
5	Demonstrate preparation of the machine and extracorporeal circuit for routine hemodialysis
6	Demonstrate initiation and establishment of routine hemodialysis
7	Understand data and information displayed by the machine regarding treatment parameters and progress
8	Identify and solve problems associated with the extracorporeal circuit
9	Identify and solve problems associated with the dialysis fluid circuit
10	Demonstrate finalization of routine hemodialysis and disconnection from the extracorporeal circuit
11	Understand the importance of external and internal machine cleaning and disinfection procedures
12	Demonstrate awareness regarding technical issues
13	Demonstrate familiarity with some infrequently used machine features

A1: Describe how to use the machine components relevant for machine operation and problem solving.

Section B – Advanced

1	- Isolated ultrafiltration Demonstrate how to handle fluid removal by the application of isolated ultrafiltration alone or in sequence with hemodialysis
2	- Single needle dialysis Demonstrate how to handle the single needle procedure and apply principles to the relevant machine parameters for performing the treatment
3	- Profiling Demonstrate setting of UF, Na and Bicarbonate profiles
4	- Diascan monitoring system Demonstrate parameter settings of the Diascan monitoring system

Section A – Basic

A1		Mentor	Trainee
1:1	Identify the new all external components associated with the blood path and describe the purpose of each		
1:2	Identify all external components associated with the dialysis fluid path and describe the purpose of each		

Reference: **AK 98** Operator's Manual
Chapter 2. Machine description

A2: Describe in detail how to navigate through the Operator's panel, displays and settings.

A2		Mentor	Trainee
2:1	Describe the Operator's panel and identify the main purpose of buttons and displays with regard to:		
	- Blood parameters		
	- Fluid parameters		
	- Blood pressure monitoring		
	- The buttons (Patient, Functions, Disinfection, Bypass, UF and Treatment history buttons)		
	- Blood pump handling		
	- General navigation		
	- Various icon buttons		
2:2	Explain the purpose of a flashing button		
2:3	Describe and explain how to navigate through the Operator's panel and: - Select a tab - Open a parameter - Change a value - Confirm a value - Cancel a value		
2:4	Explain how to activate/deactivate a function.		

Reference: **AK 98** Operator's Manual
Chapter 3. Handling the dialysis machine

A3: Demonstrate monitoring of blood pressure (BP), pulse rate and mean arterial pressure (MAP) using the BPM feature.

A3		Mentor	Trainee
3:1	Explain the importance of using the correct size cuff for each individual		
3:2	Demonstrate monitoring of BP, pulse rate and MAP using the BPM feature		
3:3	Demonstrate how to view previous BPM readings taken during the treatment		
3:4	Demonstrate the use of the BPM alarms		
3:5	Demonstrate the use of auto and manual modes and outline the value of each		

Reference: **AK 98** Operator's Manual
Chapter 8. Measuring blood pressure

A4: Identify and set parameters associated with the prescription for an individual treatment.

A4		Mentor	Trainee
4:1	Demonstrate the ability to set, check and change the treatment parameters:		
	- Blood flow		
	- Time		
	- Heparin hourly infusion		
	- Heparin stop time		
	- Heparin bolus infusion		
	- UF volume		
	- TMP alarm limits		
	- Dialysis fluid temperature		
	- Dialysis fluid sodium concentration		
	- Dialysis fluid bicarbonate concentration		
	- Dialysis fluid flow		
4:2	Explain the difference between set blood flow and actual blood flow		
4:3	Describe how the machine calculates and (if necessary) alters the UF rate during treatment		
4:4	Explain the importance of using the preset brand and size of syringe for the heparin infusion		
4:5	Demonstrate correct mounting of the syringe in the heparin infusion pump		
4:6	Demonstrate how to enter and confirm the patient ID		
4:7	Demonstrate how to retrieve and confirm the patient prescription from the CIS		
4:8	Explain how to change a prescription value and how the machine will display that the value has been manually altered		
4:9	Explain when and how you would need to label the data being sent to the CIS with the patient ID		
4:10	Explain the importance of ensuring that the inner diameter of the blood line pump segment of the blood line used corresponds to the set blood line pump segment diameter on the machine		

Reference: **AK 98** Operator's Manual
 Chapter 3. Handling the Dialysis machine
 Chapter 4. Hemodialysis – Double Needle Treatment
 Chapter 12: IT Connectivity

A5: Demonstrate preparation of the machine and extracorporeal circuit for routine hemodialysis.

A5		Mentor	Trainee
5:1	Demonstrate the start-up procedure, including power and water supply		
5:2	Demonstrate how to set/check the type of concentrate to be used		
5:3	Identify when and demonstrate how to connect concentrate/s		
5:4	Demonstrate a complete set-up of the extracorporeal circuit together with the priming solution		
5:5	Explain the importance of placing the venous line correctly into the priming detector		
5:6	Explain at which point the pressure transducer protectors can be connected to the respective pressure connector		
5:7	Demonstrate and explain the potential relevance of priming UFR		
5:8	Demonstrate when and how to connect the dialysis fluid connectors to the dialyzer		
5:9	Identify when and how to initiate and demonstrate the priming procedure		
	- Manual priming		
	- Assisted priming		
5:10	Explain why the venous drip chamber needs to be filled in order to get the treatment time display		
5:11	Explain the purpose of		
	- Priming		
	- Extra priming		
	- Recirculation		

A6: Demonstrate initiation and establishment of routine hemodialysis.

A5		Mentor	Trainee
5:12	Demonstrate when and how to activate the dialysis fluid flow		
5:13	Demonstrate when and how to activate the air detector		
5:14	Demonstrate how to solve an air detector alarm during priming		
5:15	Demonstrate how to manually activate CSBM (Concentrate Stand-by Mode)		
5:16	Demonstrate how to initiate a new priming		

Reference: **AK 98** Operator's Manual
Chapter 4. Hemodialysis – Double Needle Treatment

A6		Mentor	Trainee
6:1	Confirm machine preparation for the individual treatment		
6:2	Demonstrate the connection procedure where the priming solution is administered (A and V connected simultaneously)		
6:3	Demonstrate the connection procedure where the priming solution is discarded		
6:4	Identify how the machine determines and communicates the change from priming mode to treatment mode		
6:5	Explain the sequence in which the buttons are pressed at the start of the treatment. Explain why the blood flow should be increased before starting the ultrafiltration		

Reference: **AK 98** Operator's Manual
Chapter 4. Hemodialysis – Double Needle Treatment

A7: Understand data and information displayed by the machine regarding treatment parameters and progress.

A7		Mentor	Trainee
7:1	Explain how to interpret the displays:		
	- Venous pressure control		
	- Arterial pressure control		
7:2	Locate value parameters appropriate for recording treatment progress		
	- QB		
	- Venous pressure		
	- Arterial pressure		
	- UF Rate		
	- Acc QB		
	- Acc UFV		
	- Acc Heparin		
	- TMP		
7:3	Demonstrate AP and VP alarm limit management with regard to:		
	- auto-centralization		
	- manual adjustment		
7:4	Identify the location of and events added to the non-diffusion time		
7:5	Demonstrate how to access attentions		

A7		Mentor	Trainee
7:6	Explain the significance of the machine alarm indication light:		
	- high priority		
	- medium priority		
7:7	Demonstrate how to find the alarm history		
7:8	Explain how to find information about attentions and alarms in the Operator's Manual		

Reference: **AK 98** Operator's Manual
 Chapter 3. Handling the Dialysis Machine
 Chapter 4. Hemodialysis – Double Needle Treatment
 Alarm handbook. 1 Alarms
 Alarm handbook. 2 Attentions

A8: Identify and solve problems associated with the extracorporeal circuit

A8		Mentor	Trainee
8:1	Identify and solve problems related to:		
	- Air in venous drip chamber		
	- Low and high venous pressure alarm		
	- Low and high arterial pressure alarm		
	- Blood detected in fluid path		

Reference: **AK 98** Operator's Manual
 Alarm handbook. 1 Alarms
 Alarm handbook. 2 Attentions

A9: Identify and solve problems associated with the dialysis fluid circuit.

A9		Mentor	Trainee
9:1	Identify and solve problems related to:		
	- UF volume deviation alarm		
	- Fluid leakage alarm		
	- Conductivity alarm		
	- Temperature alarm		
	- Insufficient water supply		

Reference: **AK 98** Operator's Manual
 Chapter 3. Handling the dialysis machine
 Alarm handbook. 1 Alarms
 Alarm handbook. 2 Attentions

A10: Demonstrate finalization of routine hemodialysis and disconnection from the extracorporeal circuit

A10		Mentor	Trainee
10:1	Identify how the machine communicates the end of treatment and demonstrate how to confirm		
10:2	Demonstrate rinse-back as per unit policy		
10:3	Understand the “Confirm Patient Disconnection” implications		
10:4	Explain the purpose of removing the blood-line from the priming detector after patient disconnection		
10:5	Demonstrate recording the relevant treatment parameters after the treatment is completed		
10:6	Demonstrate draining of dialyzer fluid compartment using the machine		
10:7	Demonstrate the return of concentrate connectors to the appropriate standby port and hygienic storage of the pick-up tubes		
10:8	Demonstrate draining of the BiCart cartridge using the machine		
10:9	Describe relevant actions for discontinuing the treatment earlier than planned		

Reference: **AK 98** Operator’s Manual
Chapter 4. Hemodialysis – Double Needle Treatment

A11: Understand the importance of external and internal machine cleaning and disinfection procedure.

A11		Mentor	Trainee
11:1	Identify the rationale and procedure for:		
	- Heat disinfection		
	- Heat disinfection with liquid citric acid		
	- Heat disinfection with CleanCart cartridge		
	- Chemical disinfection		
	- Descaling		
11:2	Demonstrate how to find the disinfection history		
11:3	Identify the disinfection procedure required in connection with a confirmed blood leak, as per unit policy		
11:4	Demonstrate when and how the chemical residual test procedure is performed		
11:5	Demonstrate cleaning of external surfaces		
11:6	Discuss the process of the integrated heat or chemical disinfection with either the CWP or WRO 300 unit (not available in all markets)		

Reference: **AK 98** Operator’s Manual
Chapter 10. Disinfection and cleaning
Chapter 11. Disinfection with the **AK 98** dialysis machine and WRO system

A12: Demonstrate awareness regarding technical issues

A12		Mentor	Trainee
12:1	Discuss the value of machine presets		
12:2	Demonstrate awareness of the machine communication regarding technical issues		
12:3	Identify who to contact if a technical problem arises		

Reference: **AK 98** Operator's Manual
Alarm handbook. 1 Alarms

A13: Describe familiarity with some infrequently used machine features

A13		Mentor	Trainee
13:1	- New blood circuit Demonstrate how to change the extracorporeal circuit during treatment		
13:2	- Night light Demonstrate how to activate the night light		
13:3	- Integrated heat disinfection (not available in all markets) Identify machine settings and mode that must be programmed and activated to enable overnight integrated disinfection		
13:4	- Battery back-up Describe the purpose and the expected duration of the machine battery back-up		
13:5	- Time Demonstrate how to set the time and adjust for day light savings		
13:6	- Pause treatment Demonstrate how to pause the treatment with blood return before disconnecting the patient		

Reference: **AK 98** Operator's Manual
Chapter 3. Handling the dialysis machine
Chapter 4: Hemodialysis - Double needle treatment
Chapter 10. Disinfection and cleaning

OPERATOR TRAINING ASSESSMENT

B1: Isolated ultrafiltration. Demonstrate how to handle fluid removal by the application of isolated ultrafiltration alone or in sequence with hemodialysis

B2: Single needle dialysis

Demonstrate how to handle the single needle procedure and apply principles to the relevant machine parameters to perform treatment.

Section B – Advanced

B1		Mentor	Trainee
1:1	Demonstrate settings for isolated ultrafiltration		
1:2	Identify procedure for isolated ultrafiltration followed by dialysis		
1:3	Identify procedure for dialysis followed by isolated ultrafiltration		
1:4	Understand the isolated UF displays:		
	- Isolated UF volume		
	- Isolated UF time		
	- Isolated UF acc time		
	- Isolated UF acc volume		
1:5	Understand the time and UF displays:		
	- Total set time		
	- Non diffusion time		
	- Total set UF volume		
	- Acc UF volume		

Reference: **AK 98** Operator's Manual
Chapter 6. Isolated Ultrafiltration

B2		Mentor	Trainee
2:1	Explain the principles of single needle (SN), single pump dialysis		
2:2	Demonstrate set-up and priming with the appropriate circuit for SN dialysis		
2:3	Locate and explain the displayed single needle values:		
	- Minimum stroke volume limit		
	- Low venous pressure limit		
	- High venous pressure limit		
	- Mean blood flow rate		
	- Stroke volume		
2:4	Describe how the machine controls the phase shifts during SN dialysis		
2:5	Demonstrate initiation and performing the SN treatment		
2:6	Identify alarms and attentions specific to SN dialysis		
2:7	Demonstrate disconnection procedure for SN dialysis		

Reference: **AK 98** Operator's Manual
Chapter 5: Hemodialysis - Single Needle Treatment
Alarm handbook. 1 Alarms
Alarm handbook. 2 Attentions

B3: Profiling

Demonstrate setting of sodium, ultrafiltration and bicarbonate profiles.

B3		Mentor	Trainee
3:1	Explain the principles of sodium, UF and bicarbonate profiling		
3:2	Locate the settings and data relevant to profiling		
3:3	Explain the different profiles available		
3:4	Identify the parameters determining the shape of a profile		
3:5	Explain the effect of the minimum set UFR on UF profiling parameters		
3:6	Demonstrate when and how profiling can be activated		
3:7	Explain the outcomes if UF profiling is deactivated or settings are changed during dialysis		
3:8	Explain the outcomes if sodium or bicarbonate profiling is deactivated during dialysis		
3:9	Explain the effects on sodium and bicarbonate profiling if the remaining time is changed during treatment		

Reference: **AK 98** Operator's Manual
Chapter 7. Profiling

B4: Diascan monitoring system

Demonstrate parameter settings of the **Diascan** monitoring system.

B4		Mentor	Trainee
4:1	Briefly explain the purpose of the Diascan monitoring system		
4:2	Explain the abbreviations used for setting the Diascan monitoring system:		
	- K limit		
	- Kt/V target		
	- Volume		
	- Watson formula		
	- Kt/V limit		
4:3	Demonstrate how to set up and activate the Diascan monitoring system		
4:5	Explain machine response to a change of each of the following parameters during a measurement made by the Diascan monitoring system:		
	- QB		
	- QD		
	- UFR		
	- Conductivity		
	- Temp		

Reference: **AK 98** Operator's Manual
Chapter 9. Checking clearance (**Diascan**)

The Baxter logo is rendered in a bold, italicized, blue sans-serif font. It is positioned in the lower-left quadrant of the page, partially overlapping a light blue diamond-shaped graphic element.

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