



Extubation Advisor (EA) Technical Datasheet

Standardising Extubation Assessments & Improving Outcome Predictions

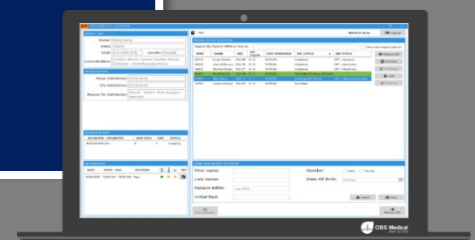
Extubation Advisor (EA) is a clinical decision support tool designed to deliver extubation outcome predictions and a standardised assessment of extubation readiness. EA uses a predictive model of extubation failure (derived from respiratory rate variability) known as the WAVE score to produce outcome predictions. The comprehensive extubation report generated for each patient also includes clinical impressions of extubation failure risk, extubation readiness checklists and existing measures of extubation readiness via the rapid shallow breathing index (RSBI).



EA Supports and Strengthens Decision Making

By compiling critical information in to one SBT synoptic report, Extubation Advisor provides peace of mind to clinicians and decision-makers.

- ✓ EA produces a clear and concise SBT Synoptic Report aiding the decision-making process
- ✓ Assessments of extubation failure risk are presented together for easy comparison
- ✓ Individualised considerations are listed to help mitigate extubation failure risk
- ✓ Past SBT performance and outcomes are readily available



System Requirements

EA Client

- Intel Core2 Duo or equivalent processor (Core i5 or better recommended) and 4GB or better memory.
- 1 GB free disk space (Requirements may vary if data is to be logged locally)
- Screen resolution of at least 1366 x 768

Database Server

- Microsoft SQL Server 2016 or more recent versions
- 64-bit processor, with at least 1.4 GHz clock speed and 4GB or better memory
- 6 GB of free space (Requirements will vary if data is being logged).
- Recorded waveforms and vitals during the SBT are stored within the database.
- Waveforms and reports can be exported as required for further analysis.

Email Server

- Generated reports are sent by standard email and require details of an SMTP server to be configured within the EA application to do so.
- The email server should be on the local network with no required outbound Internet access on the EA client.

EMR/Other medical systems

- Generated reports can be sent via HL7 to a suitably configured external medical system such as the EMR.

Printer

- Reports can be sent to networked or locally attached printers.

Patient Monitor Connectivity

- See EA Patient Monitor Compatibility List (011-1032-MM).

Installation Overview

EA is a standard Microsoft Windows application, which can be installed for use on any supported platform (EA client). The EA client is tested and validated for use on Microsoft Windows 10 Fall Creators Update (1709) and above.

EA stores collected data in a database which can either be local to the individual client machine ("local installation") or centralised ("centralised installation"). If more than one EA device is in use, it is highly recommended that a centralised installation is deployed.

A SMTP server must be available and configured to allow mail relay from the client(s) to deliver EA reports.

EA can optionally also output its report to other medical data systems via HL7

Supported Monitor Types

EA has been validated for use on three major families of patient monitors*

Manufacturer	Patient Monitor Family
Philips	IntelliVue Series
GE	Datex, Carescape
Medtronic	Capnostream

* Please refer to the Patient Monitor Compatibility List (011-1032-MM) for all supported Patient Monitors, CO₂ (Capnography) Modules, Sensors & Accessories.

Required Monitor Modules:

- Compatible CO₂ (capnography) module and sensor and suitable tubing as would be used to monitor a patient's etCO₂ output

Optional Inputs:

- Blood pressure, ECG, SPO₂ modules or multi-parameter modules
- If suitable modules are not available to acquire these parameters from the monitor, they may be entered manually

EA Example Equipment Overview

Extubation Advisor with Philips Monitor (serial interface):

- EA Client
- Compatible IntelliVue Patient Monitor and Capnography Module
- RS232 serial interface card installed in monitors
- Philips Serial (RS232) to RJ45 cable and USB-to-serial converter adaptor

