

PedCath EPIC

PedCath does not currently have a direct interface with EPIC, but there are several ways to transfer the PedCath results over.

The main result out of PedCath is the cath report in PDF format, which contains a customized heart diagram showing the patient's unique anatomy, case summary measurements, and normally a narrative/procedure notes, among other things.

This is what is most valuable for the physician and what is recommended to store in any HIS system if possible.

EPIC can accept a PedCath HL7 message, which can contain all the PedCath data elements, a text-based version of the report and a link to or embedded copy of the PDF report.

PedCath Export Protocols

PedCath can send the messages/exports over a number of protocols:

- PedCath can write an HL7 message to a file share on your network. (EPIC 2010 and 2012 releases contain functionality to pick up files from a file share.)
- PedCath can also send the HL7 message (and other formats) over FTP.
- PedCath currently does **not** support sending HL7 over TCP/IP directly. To send the HL7 messages to EPIC via TCP/IP it's recommended to use a third-party HL7 router such as EasyHL7 or an Interface Server that will watch the PedCath export directory and relay the files that are found.

Transferring the PDF Report

Manual PDF Import

EPIC will allow you to import PDF files manually into the Media Manager Tool, or into a custom Cardiac tab.

On the PedCath side you can either save the report manually to a file when in the report setup, or have it sent to a share folder automatically at the end of the case, and pick it up out of that folder.

PDF + HL7

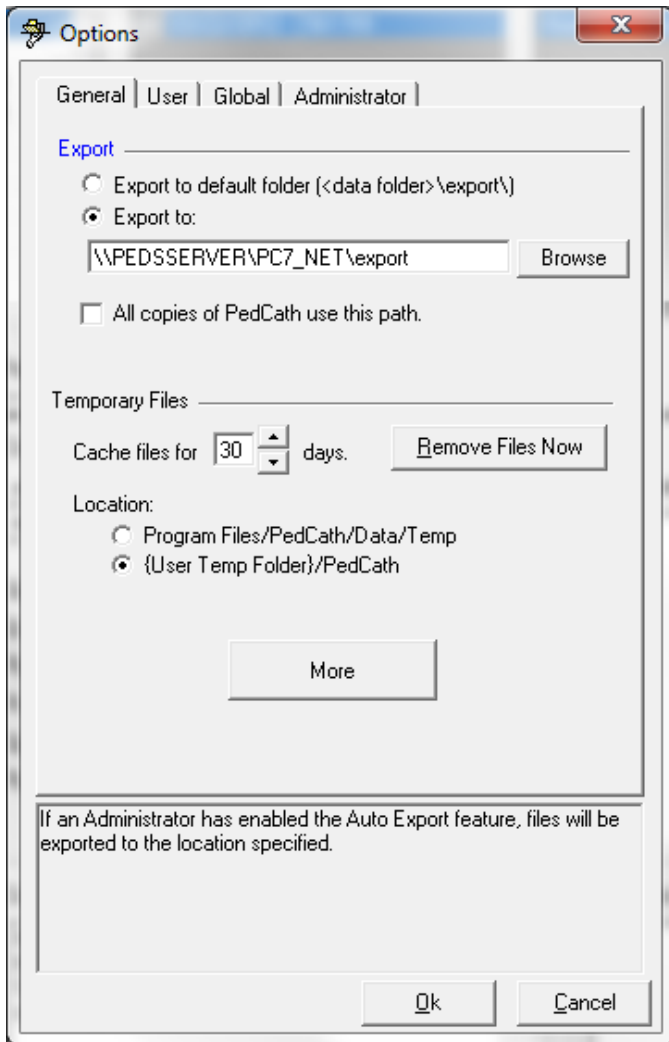
In addition to the PDF file PedCath can write an HL7 file at the same time to a share directory. When they are sent together, PedCath will include a file reference link to the PDF file in the final OBR segment of the HL7. (PedCath 8 will allow you to set the HL7 location independently of the PDF and other Exports.)

Ex:

```
OBR|8||10694^PedCath|10010^REPORT^^^^||20030522|||||200902241730||CTH|F|||||  
OBX|1|RP|10010-01^REPORTUNC|\\PEDSSERVER\PC7_NET\export\03c-0123.pdf|||||F||20030522|||
```

EPIC requires that only the top-level OBR segment exist in the message, so it is recommended to either use the option to remove all but the first OBR header (will keep all of the discrete data OBXs), or use the PDF-only message option.

If you want the PDF link to show up as a UNC path it is recommended to explicitly set the export location as a UNC path. If the export is mapped to the default location (PC7_NET\export), it will be based on the current user's connection to the PedCath database, which may be based on a mapped drive rather than UNC.



HL7 with embedded PDF

PedCath can also include the PDF embedded within the HL7 file in Base64 encoding, if you would like to store the report directly within EPIC.

```
OBR|8|10702^PedCath|10010^REPORT^^^^||19950924|||||||200902241736||CTH|F|||||||
OBX|1|ED|10010-02^REPORTEMBED||PDF^TEXT^^Base64^JVBERi0xLjINCjEgMCMvYmoNCjw8DQ ...
```

There are some additional requirements on EPICs end to be able to store the reports directly within the system. EPIC version 2008 or later is required as well as a blob server. Contact your EPIC support associate for more information about storing binary data.

HL7 PDF-only Message

If you are only interested in the PDF report, there is no reason to transfer all of the measurements within the HL7 as well. PedCath will allow you to create an HL7 message

with only a link to the PDF file (or an embed). All of the discrete data elements will be suppressed. To use the PDF link option, the PDF report should be exported at the same time.

The message will look similar to the following.

```
MSH|^~\&|PedCath|||20120501162727||ORU^R01|PC720120501162727|D|2.3.1|||||
PID|||1234567||Deere^John^R||19941231^17^years|M|||||32423424|||||
OBR|1|||10010^REPORT^^^^||20120330|||||20120501162255||CTH|P|||||
OBX|1|RP|10010-01^REPORTUNC||\PEDSSERVER\PC7_NET\export\CN10002012-05-01-1627.pdf||||P|||20120501162255|||
```

Sending Text/Discrete Data

Wrapping Text Output/Documents within HL7

If your HIS system is not able to accept PDFs you can also configure the HL7 to include the entire text-based report within the HL7. This will allow you to include the entire text of the report within your HIS without having to map individual fields.

Ex.

```
OBR|9|||10012^TEXTREPORT^^^^||19950924|||||20120312184501||CTH|P|||||
OBX|1|ST|10012-01^TEXTREPORT||Deere, John R|TEXT||||P|||19950924|||
OBX|2|ST|10012-01^TEXTREPORT||HRN: 1234567|TEXT||||P|||19950924|||
```

You can also include the text from documents in the Document Manager within the HL7 as well:

```
OBR|8|||10011^DOCUMENTS^^^^||19950924|||||20120312184501||CTH|P|||||
OBX|1|ST|10011-01^DOC_TITLE|1|PostCath Instructions|TEXT||||P|||19950924|||
OBX|2|ST|10011-02^DOC_CONTENTS|1|Post-Catheterization Instructions|TEXT||||P|||19950924|||
OBX|3|ST|10011-02^DOC_CONTENTS|1|...||||P|||19950924|||
```

These features are available in PedCath 8 only.

Sending discrete data to EPIC

The hemodynamic measurements in PedCath are generally regarded as summary measurements – which are seen as the most representative measurements by the attending physician, and may or may not correspond to particular measurements taken during the case. These do not have timestamp values associated with them, which are required by EPIC to receive discrete data elements.

If it is desired to collect all measurements taken during the case it's recommended to send the discrete data elements directly from your hemodynamic monitoring system separately from the PedCath report.

Other Considerations

Preliminary/Final Reports

If you are interested in tracking multiple revisions of the PedCath report, PedCath will allow you to do so. You can set the automatic exports trigger to send the reports every time the case is saved – to track every revision, or when the case is locked – to send the final report.

There is also a manual export trigger, which would give you more flexibility when sending a preliminary report. The manual export trigger may also be needed if it's necessary to resend the report to EPIC (if it's initially rejected due to a demographic type-o for instance).

Solicited vs. Unsolicited Messages

PedCath will send a solicited message (i.e. include the Placer Order Number in the HL7 header), if the order number is passed to PedCath during a hemodynamic import using the Direct Data Import Utility. This will allow you to link the PedCath report to the order in your HIS system.

PedCath also gives you the option to use the cath number as the Placer Order Number in the HL7 options, or to leave it blank.

If the order number is not set, the PedCath results will be sent unsolicited.