

# Electrophysiology

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## *Interface Overview*



The ASCEND reporting interface is split into two sides. The data entry tabs are shown on the left and recorded findings appear in the viewers on the right. Let's start by considering the viewers on the right.

The screenshot displays the ASCEND reporting interface, which is split into two main sections. The left section contains data entry tabs, and the right section contains recorded findings.

**Left Section (Data Entry Tabs):**

- History (highlighted with a red box)
- ECG
- Study
- Device
- Electrophysiology
- Conclusions

**Right Section (Recorded Findings):**

- Findings (highlighted with a red box)
- Report

**History Tab Content:**

- HPI and indications**
  - Signs and symptoms
    - Cardiac/respiratory: Murmur
    - Neurologic: Partial seizures
    - Pertinent negatives
  - Rhythm disturbance
    - Atrial fibrillation
    - Atypical atrial flutter
    - Counterclockwise atrial flutter
    - Clockwise atrial flutter
    - Atrial tachycardia
    - AVNRT
    - Bradycardia
    - 3° AV block
    - Brugada
    - Ventricular ectopy
    - Long QT
    - AV reentrant tachycardia
    - SVT
    - Sinus dysfunction
    - Wide complex tachycardia
    - Narrow complex tachycardia
    - VT
  - Temporal pattern: Paroxysmal
  - Rhythm/syndrome: Atrial fibrillation
  - Risk factors/etiology: No structural disease
  - CAD, ACS, MI
- HPI and indications (cont'd)**
  - Cardiac function, disease
    - Syndrome: Congestive heart failure
    - Resulting CHF: Present
  - Past medical history**
    - Sudden death
    - CVA
    - MI
    - Arrhythmic
  - Labs, prior procedures**
    - Ablation
    - Cardioversion
    - Cardiac cath
    - Abnormal ECG
    - EP study
    - ICD implant
    - Loop recorder implant
    - Pacemaker implant
    - TEE ruled out thrombi
    - Tilt table study
  - Patient status, risk factors**
    - Functional status
      - Systolic function: Normal
      - Baseline EF (%)
      - Killip class: I - no sign of CHF
- ICD9**
  - Cardioversion in
  - Device surgery
  - EP study indica
  - NIPS indication
  - Tilt table study

**Findings Tab Content:**

- Summary**
  - Hardware testing and settings: Successful single-chamber permanent pacemaker implantation.
  - New summary item
- Impressions**
  - New impression
- Study data**

Patient is 53 yr old. Patient birthdate: 12/19/1959. Study date: 11/09/2013. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m<sup>2</sup>. BSA: 1.44 m<sup>2</sup>. Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained. All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.
- Procedure narrative**
  - Initial setup. The patient was brought to the laboratory in the fasting state. Intravenous access was obtained. Surface ECG leads, intracardiac electrograms, telemetered electrograms, and blood pressure measurements were monitored. A grounding pad was placed. Self-adhesive defibrillation pads were applied.
  - Sedation. Moderate sedation was administered by cardiology staff.
  - Skin preparation. The planned puncture sites and the left chest were prepped and

The *Findings* viewer is a list of reported findings organized into anatomic and functional sections.

**History**

**HPI and indications**

Signs and symptoms

- Cardiac/respiratory: Murmur
- Neurologic: Partial seizures
- Pertinent negatives

Rhythm disturbance

- Atrial fibrillation
- Atypical atrial flutter
- Counterclockwise atrial flutter
- Clockwise atrial flutter
- Atrial tachycardia
- AVNRT
- Bradycardia
- 3° AV block
- Brugada
- Ventricular ectopy
- Long QT
- AV reentrant tachycardia
- SVT
- Sinus dysfunction
- Wide complex tachycardia
- Narrow complex tachycardia
- VT

Temporal pattern: Paroxysmal

Rhythm/syndrome: Atrial fibrillation

Risk factors/etiology: No structural diseases

CAD, ACS, MI

**HPI and indications (cont'd)**

Cardiac function, disease

Syndrome: Congestive heart failure

Resulting CHF: Present

**Past medical history**

- Sudden death
- CVA
- MI
- Arrhythmic

**Labs, prior procedures**

- Ablation
- Cardioversion
- Cardiac cath
- Abnormal ECG
- EP study
- ICD implant
- Loop recorder implant
- Pacemaker implant
- TEE ruled out thrombi
- Tilt table study

**Patient status, risk factors**

Functional status: Normal

Systolic function: Normal

Baseline EF (%):

Killip class: I - no sign of CHF

**Findings**

**Summary**

1. **Hardware testing and settings:** Successful single-chamber permanent pacemaker implantation.
2. [New summary item](#)

**Impressions**

[New impression](#)

**Study data**

Patient is 53 yr old. Patient birthdate: 12/19/1959. Study date: 11/09/2013. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m<sup>2</sup>. BSA: 1.44 m<sup>2</sup>. Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained. All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.

**Procedure narrative**

1. Initial setup. The patient was brought to the laboratory in the fasting state. Intravenous access was obtained. Surface ECG leads, intracardiac electrograms, telemetered electrograms, and blood pressure measurements were monitored. A grounding pad was placed. Self-adhesive defibrillation pads were applied.
2. Sedation. Moderate sedation was administered by cardiology staff.
3. Skin preparation. The planned puncture sites and the left chest were prepped and

The *Findings* viewer also shows content as it is being entered into the system.

The screenshot displays the 'Findings' viewer interface. At the top, there is a navigation bar with 'History' and 'Findings' tabs. The 'Findings' tab is active, and a red box highlights it. Below the navigation bar, the interface is divided into several sections:

- History:** A sidebar on the left with a tree view under 'HPI and indications >'. It includes categories like 'Signs and symptoms', 'Rhythm disturbance', and 'Risk factors/etiology'. Each item has a yellow lightning bolt icon.
- HPI and indications (cont'd):** A section with dropdown menus for 'Cardiac function, disease >', 'Syndrome', and 'Resulting CHF'. The 'Syndrome' dropdown is set to 'Congestive heart fa' and 'Resulting CHF' is set to 'Present'.
- Past medical history >:** A section with a list of conditions and yellow lightning bolt icons: Sudden death, CVA, MI, Arrhythmic >, Ablation, Cardioversion, Cardiac cath, Abnormal ECG, EP study, ICD implant, Loop recorder implant, Pacemaker implant, TEE ruled out thrombi, and Tilt table study.
- Labs, prior procedures >:** A section with a list of procedures and yellow lightning bolt icons: Ablation, Cardioversion, Cardiac cath, Abnormal ECG, EP study, ICD implant, Loop recorder implant, Pacemaker implant, TEE ruled out thrombi, and Tilt table study.
- Patient status, risk factors >:** A section with dropdown menus for 'Functional status >', 'Systolic function', 'Baseline EF (%)', and 'Killip class'. 'Systolic function' is set to 'Normal' and 'Killip class' is set to 'I - no sign of CHF'.
- Summary:** A section with a 'New summary item' button.
- Impressions:** A section with a 'New impression' button.
- Study data:** A section with a 'New recommendation' button. It contains text: 'Patient is 53 yr old. Patient birthdate: 12/19/1959. Study date: 11/09/2013. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m². BSA: 1.44 m². Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained. All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.'
- Adverse outcomes:** A section with text: 'There were no complications.'
- Recommendations:** A section with a 'New recommendation' button.

At the bottom of the interface, there is a red text prompt: 'Scroll for additional content →'.

The *Report* viewer shows content as it will appear in the final report. Sentences in the *Findings* and *Report* viewers are the same and editable, although the *Report* viewer shows headings and measurements while the *Findings* viewer does not.

The screenshot displays the ASCEND software interface, specifically the 'Report' viewer. The top navigation bar includes 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The 'Report' tab is highlighted with a red box. The main content area is divided into three columns:

- History:** A list of clinical indicators under 'HPI and indications', including 'Signs and symptoms', 'Rhythm disturbance', and 'Cardiac function, disease'. Indicators like 'Atrial fibrillation' and 'Brugada' are marked with yellow double arrows.
- Patient status, risk factors:** A section with various dropdown menus for 'Functional status', 'Systolic function', 'Baseline EF (%)', 'Killip class', 'NYHA class', 'ASA risk class', 'Vascular risk factors', and 'Tobacco use'.
- Report:** Contains patient information for 'ASCEND General Hospital', 'Electrophysiology Study' details (Patient, MRN, Accession, Study date, Birth date, Age, Height, Weight, BSA), and a procedure description. The procedure includes:
  - Initial setup. The patient was brought to the laboratory in the fasting state. Intravenous access was obtained. Surface ECG leads, intracardiac electrograms, blood pressure measurements, and pulse oximetric signals were monitored. A grounding pad was placed. Self-adhesive defibrillation pads were applied.
  - Sedation. Moderate sedation was administered.
  - Skin preparation. The planned puncture sites and the groins were prepped and draped in the usual sterile manner.
  - Right femoral vein access. The access site was infiltrated with lidocaine. The vessel was entered using the modified Seldinger technique. A sheath was advanced into the vessel. Details of catheter placement are described below.
  - Electrophysiologic testing was performed. Measurements of basic intervals were obtained.
  - Hemostasis. The sheath was removed. Compression was applied. Hemostasis was successfully obtained.

The data entry forms appear on the left side of the interface and are organized into related groups called *Tabs*. In this example, *History* is a *tab*.

The screenshot displays a medical software interface with a dark blue header bar containing navigation options: SEARCH, UNDO, REDO, HELP, and OPTIONS. Below the header, a menu bar includes 'History' (highlighted with a red box), ECG, Study, Device, Electrophysiology, and Conclusions. The main content area is titled 'History' and is organized into several sections:

- HPI and indications**: A list of signs and symptoms with dropdown menus for selection. Categories include Cardiac/respiratory (Murmur), Neurologic (Partial seizures), Pertinent negatives, Rhythm disturbance (Atrial fibrillation, Atypical atrial flutter, Counterclockwise atrial flutter, Clockwise atrial flutter, Atrial tachycardia, AVNRT, Bradycardia, 3° AV block, Brugada, Ventricular ectopy, Long QT, AV reentrant tachycardia, SVT, Sinus dysfunction, Wide complex tachycardia, Narrow complex tachycardia, VT), Temporal pattern (Paroxysmal), Rhythm/syndrome (Atrial fibrillation), and Risk factors/etiology (No structural diseases).
- HPI and indications (cont'd)**: Cardiac function, disease (Syndrome: Congestive heart fa, Resulting CHF: Present).
- Past medical history**: Sudden death, CVA, MI, Arrhythmic.
- Labs, prior procedures**: Ablation, Cardioversion, Cardiac cath, Abnormal ECG, EP study, ICD implant, Loop recorder implant, Pacemaker implant, TEE ruled out thrombi, Tilt table study.
- Patient status, risk factors**: Functional status (Systolic function: Normal, Baseline EF (%), Killip class: I - no sign of CHF).

The right side of the interface shows a 'Findings' report with sections for Summary, Impressions, Study data, Adverse outcomes, and Recommendations. The 'Study data' section includes patient demographics and procedure details. The 'Adverse outcomes' section states 'There were no complications.' and the 'Recommendations' section has a 'New recommendation' button.

Within the *Tabs*, content for a report can be accessed through finding group headings. In this example, *Procedure narrative* is a finding group heading. Clicking the heading opens data entry forms where you can access all of the content associated with the procedure.

The screenshot displays a medical software interface with a dark blue header and a light grey sidebar. The main content area is divided into three sections: 'Study data', 'Procedure narrative', and 'Discharge'. The 'Study data' section includes fields for 'Consent', 'Study completion', 'Fluoroscopy time', 'Medications given', and 'Dose units'. The 'Procedure narrative' section is currently selected and shows a list of data entry fields for 'Initial setup', 'Physiologic monitoring', 'Skin preparation', and 'Local anesthesia'. The 'Discharge' section includes fields for 'Patient disposition', 'Discharge/follow-up plans', and 'Follow-up appointment'. On the right side, there is a 'Findings' tab with a 'Report' sub-tab. The 'Report' sub-tab is active and shows a 'Summary' section with a 'New summary item' button, an 'Impressions' section with a 'New impression' button, and a 'Study data' section with a 'New recommendation' button. The 'Study data' section in the report contains patient information: 'Patient is 55 yr old.', 'Patient birthdate: 12/19/1959.', 'Study date: 01/30/2015.', 'Gender: female.', 'Height: 130 cm.', 'Height: 51.2 in.', 'Weight: 55 kg.', 'Weight: 121 lb.', 'BMI: 32.5 kg/m².', 'BSA: 1.44 m².', 'Pacemaker implantation.', 'Elective.', and 'The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained.'

**Study**

**Study data**

Consent

Study completion

Medications given

Cardiac medications

Total dose of this medication

Dose units

**Procedure narrative**

Initial setup

Fasting state

IV access obtained

Physiologic monitoring

Ground pad

Defib pad position

Skin preparation

Skin prep locations

Prep solution

Local anesthesia

Location

Agent

Concentration (%)

**Procedure narrative (cont'd)**

Sedation

Sedation type

Electrode/catheter access

**Adverse outcomes**

No complications

Complications

Adverse outcomes

**Discharge**

Patient disposition

Discharged to

Discharge/follow-up plans

Discharge

Patient alerted to...

For urgent issues call

Patient instructions given

Follow-up appointment

Physician

Timing

**Findings**

**Report**

**Summary**

[New summary item](#)

**Impressions**

[New impression](#)

**Study data**

Patient is 55 yr old. Patient birthdate: 12/19/1959. Study date: 01/30/2015. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m². BSA: 1.44 m². Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained.

Pre-existing settings table

All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.

**Adverse outcomes**

There were no complications.

**Recommendations**

[New recommendation](#)

Tab sets are a group of tabs that represent the work flow for the selected study. The example shown below is the tab set for the pacemaker implantation study.

The screenshot displays a medical software interface with a dark blue header. A red box highlights the 'History' tab, which is part of a set of tabs including 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The main content area is titled 'History' and is divided into several sections:

- HPI and indications**: Includes 'Signs and symptoms' (Cardiac/respiratory: Murmur, Neurologic: Partial seizures, Pertinent negatives), 'Rhythm disturbance' (Atrial fibrillation, Atypical atrial flutter, Counterclockwise atrial flutter, Clockwise atrial flutter, Atrial tachycardia, AVNRT, Bradycardia, 3° AV block, Brugada, Ventricular ectopy, Long QT, AV reentrant tachycardia, SVT, Sinus dysfunction, Wide complex tachycardia, Narrow complex tachycardia, VT), and 'Temporal pattern' (Paroxysmal), 'Rhythm/syndrome' (Atrial fibrillation), and 'Risk factors/etiology' (No structural diseases).
- HPI and indications (cont'd)**: Includes 'Cardiac function, disease' (Syndrome: Congestive heart failure, Resulting CHF: Present).
- Past medical history**: Lists Sudden death, CVA, MI, and Arrhythmic.
- Labs, prior procedures**: Lists Ablation, Cardioversion, Cardiac cath, Abnormal ECG, EP study, ICD implant, Loop recorder implant, Pacemaker implant, TEE ruled out thrombi, and Tilt table study.
- Patient status, risk factors**: Includes 'Functional status' (Systolic function: Normal, Baseline EF (%): [input field], Killip class: I - no sign of CHF).

On the right side, the 'Findings Report' panel is visible, containing sections for Summary (New summary item), Impressions (New impression), Study data (Patient is 55 yr old, Patient birthdate: 12/19/1959, Study date: 01/30/2015, Gender: female, Height: 130 cm, Height: 51.2 in, Weight: 55 kg, Weight: 121 lb, BMI: 32.5 kg/m², BSA: 1.44 m², Pacemaker implantation, Elective, The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained.), Pre-existing settings table (All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.), Procedure narrative (Left infraclavicular pocket construction), Adverse outcomes (There were no complications), and Recommendations (New recommendation).



The *Index* tab is a special tab that gives access to all of the content within the reporting interface, in addition to the major tabs for the different study types.

The screenshot displays the ASCEND reporting interface. At the top, a dark blue navigation bar contains a search icon, followed by 'UNDO', 'REDO', 'HELP', and 'OPTIONS'. Below this, a secondary navigation bar features the 'Index' tab (highlighted with a red box) and other tabs: 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The main content area is divided into three vertical panels. The left panel, titled 'Index', lists major sections: 'History' (with sub-items like HPI and indications, Past medical history, Labs, prior procedures, Allergies, diet, and meds, Patient status, risk factors, ICD-9 codes), 'Study' (with sub-items like Study data, Adverse outcomes, Procedure narrative, Technical notes, Referral letter notes, Urgent and critical findings, Discharge), 'Findings' (with sub-items like Baseline ECG, Intervals and conduction, EP results, Hardware testing and settings, Systemic veins), and 'Conclusions' (with sub-items like Impressions, Recommendations). The middle panel, titled 'All tabs' (also highlighted with a red box), lists sub-sections under various categories: 'Startup macros', 'General' (History, ECG, Study, Conclusions), 'Cardioversion' (Study), 'Device' (Device), 'Electrophysiology' (Electrophysiology), and 'Tilt' (Tilt, Conclusions). The right panel, titled 'Findings Report', contains a 'Summary' section with a 'New summary item' button, an 'Impressions' section with a 'New impression' button, and a 'Study data' section with patient information: 'Patient is 55 yr old.', 'Patient birthdate: 12/19/1959.', 'Study date: 01/30/2015.', 'Gender: female.', 'Height: 130 cm.', 'Height: 51.2 in.', 'Weight: 55 kg.', 'Weight: 121 lb.', 'BMI: 32.5 kg/m².', 'BSA: 1.44 m².', 'Pacemaker implantation.', 'Elective.', 'The risks, benefits, and alternatives to the procedure and sedation were explained to the patient and informed consent was obtained.' Below this is a 'Pre-existing settings table' section with the text: 'All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.' The 'Procedure narrative' section contains the text: 'Left infraclavicular pocket construction.' The 'Adverse outcomes' section contains the text: 'There were no complications.' The 'Recommendations' section has a 'New recommendation' button.

Using the data entry forms located in each tab, you can enter the study findings by selecting items from a combination of pick lists, checkboxes, or quick report macros indicated by the lightning bolt icons.

The screenshot displays the ASCEND software interface, divided into several sections:

- History:** Contains sections for "HPI and indications (cont'd)", "Past medical history", "Labs, prior procedures", and "Patient status, risk factors". Each section includes various data entry fields and pick lists. A red arrow points from the "Loop recorder implant" entry in the "Past medical history" section to the "Study data" section in the Findings panel.
- Functional status (cont'd):** Includes fields for NYHA class, ASA risk class, and Vascular risk factors.
- ICD9:** Lists various indications such as Cardioversion, Device surgery, EP study, NIPS, and Tilt table study.
- Findings:** Contains sections for "Summary", "Impressions", "Study data", "Adverse outcomes", and "Recommendations". The "Study data" section includes patient demographics and clinical details.

*Pick lists* allow you to enter single or multiple findings into the report. They are designated with a down arrow after the text field. Below is an example of a column of *pick lists*.

The screenshot displays a medical software interface with a dark blue header and a light grey main area. The header includes a search bar and navigation tabs: 'Index', 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The 'Study' tab is active. The main area is divided into several sections:

- Study data:** Includes fields for 'Consent' (Item recorded), 'Study completion' (Fluoroscopy time), 'Medications given' (Cardiac, Noncardiac), and 'Dose' (Dose, Dose units).
- Procedure narrative:** Includes 'Initial setup' (Fasting state, IV access, Physiologic monitoring, Ground pad, Defib pad position), 'Skin preparation' (Skin prep locations, Skin preparation, Prep solution), and 'Local anesthesia' (Location, Agent, Concentration). A red box highlights the 'Physiologic monitoring' section, which contains three pick lists: 'Pulse oximetry', 'R thigh', and 'Anterior-apical'.
- Procedure narrative (cont'd):** Includes 'Sedation' (Sedation type), 'Electrode/catheter access', 'Adverse outcomes' (No complications, Complications), and 'Discharge' (Patient disposition, Discharge, Discharge/follow-up plans, Patient alerted to..., For urgent issues call, Patient instructions given).
- Follow-up appointment:** Includes 'Physician' and 'Timing'.

On the right side, there is a 'Findings' and 'Report' section. It contains a 'Summary' section with a 'New summary item' button, an 'Impressions' section with a 'New impression' button, and a 'Labs, prior procedures' section with a 'Permanent pacemaker system implantation' link. Below this is a 'Patient status, risk factors' section with a paragraph of text: 'ASA risk class II (procedure in patient with mild systemic disease). No risk factors for vascular disease.' This is followed by a 'Study data' section with a paragraph of patient information: 'Patient is 55 yr old. Patient birthdate: 12/19/1959. Study date: 01/30/2015. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m². BSA: 1.44 m². Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure were explained to the patient and informed consent was obtained.' Below this is a 'Pre-existing settings table' section with a paragraph: 'All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.' This is followed by an 'Adverse outcomes' section with the text 'There were no complications.' and a 'Recommendations' section with a 'New recommendation' button.

You can insert a statement into the report by selecting a single finding from a *pick list*.

The screenshot displays a medical software interface with a dark blue header and a main content area. The header includes a search bar and navigation tabs: 'Index', 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The 'Study' tab is active, showing a form with sections for 'Study data', 'Procedure narrative', and 'Discharge'. The 'Initial setup' section under 'Procedure narrative' has a pick list with options: 'Fasting', 'Non-fasting', 'Fasting/IV fluids', and 'Postabsorptive'. A red arrow points from the 'Fasting' option to the 'Report' panel on the right. The 'Report' panel shows a 'Summary' section with a 'New summary item' link, followed by 'Impressions' with a 'New impression' link, 'Labs, prior procedures' with a link to 'Permanent pacemaker system implantation.', 'Patient status, risk factors' with a link to 'ASA risk class II (procedure in patient with mild systemic disease).', and 'Study data' with a link to 'Patient is 55 yr old.'. The 'Initial setup. The patient was brought to the laboratory in the fasting state.' text is highlighted in blue. Other sections in the report include 'Adverse outcomes' with a link to 'There were no complications.' and 'Recommendations'.

Default entries appear as grayed text in a *pick list*. You can add a default entry to the report with a single click.

The screenshot displays a medical software interface with a dark blue header and a light gray main area. The header includes a search bar and navigation tabs: 'Index', 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The 'Study' tab is active, showing a form with sections for 'Study data', 'Procedure narrative', and 'Discharge'. The 'Procedure narrative' section includes a 'Fasting state' pick list with 'Fasting' selected. A red arrow points from this pick list to the 'Initial setup' entry in the 'Procedure narrative' section of the 'Report' panel on the right. The 'Report' panel also shows 'Summary', 'Impressions', 'Labs, prior procedures', 'Patient status, risk factors', and 'Study data' sections.

Multi select pick lists let you choose more than one item to create a sentence.

The screenshot displays a medical software interface with a dark blue header and a light grey sidebar. The main content area is divided into several sections. On the left, the 'Study' section is active, showing 'Study data' and 'Procedure narrative'. Under 'Procedure narrative', the 'Skin preparation' section is expanded, showing a multi-select pick list with four options: 'Clipped', 'Shaved', 'Prepped', and 'Draped'. The 'Prepped' option is selected. A red arrow points from this selection to the 'Procedure narrative' section on the right, which contains a list of steps. The first step is 'Initial setup. The patient was brought to the laboratory in the fasting state. Pulse oximetric signals were monitored.' The second step is 'Skin preparation. The planned puncture sites were shaved and prepped in the usual sterile manner.' The 'Prepped' option from the pick list is highlighted in blue in the second step. The right sidebar contains 'Findings' and 'Report' tabs, with 'Findings' selected. It shows a 'Summary' section with a 'New summary item' button, an 'Impressions' section with a 'New impression' button, and a 'Patient status, risk factors' section with a 'No risk factors for vascular disease' checkbox. The 'Study data' section in the sidebar shows patient information: 'Patient is 55 yr old. Patient birthdate: 12/19/1959. Study date: 01/30/2015. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m². BSA: 1.44 m². Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure were explained to the patient and informed consent was obtained. Pre-existing settings table All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab. Procedure narrative 1. Initial setup. The patient was brought to the laboratory in the fasting state. Pulse oximetric signals were monitored. 2. Skin preparation. The planned puncture sites were shaved and prepped in the usual sterile manner.'

Special controls in some *pick lists* let you specify a date or time field. You may enter imprecise dates such as 2014, summer of 2014, July 2014, or exact dates such as 08/13/2014.

The screenshot displays a medical software interface. A 'Past medical history' dialog box is open, showing a calendar for August 2014. A red arrow points from the 'Aug-13-2014' date selection in the dialog to the 'Myocardial infarction (08/13/2014)' entry in the 'Findings' report panel on the right. The 'Findings' panel includes sections for Summary, Impressions, Past medical history, Labs, prior procedures, Patient status, risk factors, Study data, and Procedure narrative.

**History**

HPI and indications ▶  
Signs and symptoms ▶  
Cardiac/respiratory: Murmur  
HPI and indications (cont'd)  
Cardiac function, disease ▶  
Syndrome: Congestive heart fa  
Functional status  
NYHA class  
ASA risk class

**Past medical history**

Coronary: Select, New  
Syndrome: MI  
Timing: Current admission  
Date: Aug-13-2014  
Prior MI on date...

Spring	Jan	1	11	21	1940	1950	1960	1970	1980	1990	2000	2010
Summer	Feb	2	12	22	1941	1951	1961	1971	1981	1991	2001	2011
Fall	Mar	3	13	23	1942	1952	1962	1972	1982	1992	2002	2012
Winter	Apr	4	14	24	1943	1953	1963	1973	1983	1993	2003	2013
	May	5	15	25	1944	1954	1964	1974	1984	1994	2004	2014
	Jun	6	16	26	1945	1955	1965	1975	1985	1995	2005	2015
	Jul	7	17	27	1946	1956	1966	1976	1986	1996	2006	2016
	Aug	8	18	28	1947	1957	1967	1977	1987	1997	2007	2017
	Sep	9	19	29	1948	1958	1968	1978	1988	1998	2008	2018
	Oct	10	20	30	1949	1959	1969	1979	1989	1999	2009	2019
	Nov			31								
	Dec	None										

Other Year: 2014  
Yesterday Today Tomorrow

venous thromboembolic ▶  
Syndrome: Pulmonary embolus  
Pulmonary ▶  
Syndrome: COPD exacerbation

temporal pattern ▶  
Rhythm/syndrome: Atrial fibrillation  
Risk factors/etiology: No structural disease  
CAD, ACS, MI ▶

Systolic function: Normal  
Baseline EF (%):  
Killip class: I - no sign of CHF

**Findings** Report

**Summary**  
New summary item

**Impressions**  
New impression

**Past medical history**  
Myocardial infarction (08/13/2014)

**Labs, prior procedures**  
Permanent pacemaker system implantation.

**Patient status, risk factors**  
ASA risk class II (procedure in patient with mild systemic disease). No risk factors for vascular disease.

**Study data**  
Patient is 55 yr old. Patient birthdate: 12/19/1959. Study date: 01/30/2015. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m<sup>2</sup>. BSA: 1.44 m<sup>2</sup>. Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure were explained to the patient and informed consent was obtained.

Pre-existing settings table

All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.

**Procedure narrative**

1. Initial setup. The patient was brought to the laboratory in the fasting state. Pulse oximetric signals were monitored.
2. Skin preparation. The planned puncture

Select or Type pick lists let you choose an item from a list or add a new item in the text field. In the example shown below, sterile water was typed in the text field to specify the Prep solution.

The screenshot displays a medical software interface with a dark blue header and a main content area. The header includes a search bar and navigation tabs: 'Index', 'History', 'ECG', 'Study', 'Device', 'Electrophysiology', and 'Conclusions'. The 'Study' tab is active, showing a form with several sections:

- Study data**: Includes fields for 'Consent' (item recorded), 'Study completion' (Fluoroscopy time), 'Medications given' (Cardiac and Noncardiac), and 'Dose' (Dose and Dose units).
- Procedure narrative**: Includes 'Initial setup' (Fasting state, IV access, Physiologic monitoring, Ground pad, Defib pad position), 'Skin preparation' (Skin prep locations, Skin preparation), 'Prep solution' (currently showing 'sterile water' in the text field), and 'Local anesthesia' (Location, Agent, Concentration).
- Procedure narrative (cont'd)**: Includes 'Sedation' (Sedation type: Moderate sedation), 'Electrode/catheter access', 'Adverse outcomes' (No complications checked), and 'Discharge' (Patient disposition: Home, Discharge/follow-up plans: Discharge: Same day, Patient alerted to: Bleeding, For urgent issues call: Procedural cardiologist).

On the right side, there are two panels: 'Findings' and 'Report'. The 'Report' panel is active, showing a 'Labs, prior procedures' section with 'Permanent pacemaker system implantation.' and a 'Patient status, risk factors' section with 'ASA risk class II (procedure in patient with mild systemic disease)'. Below this is a 'Study data' section with patient information (55 yr old, birthdate: 12/19/1959, study date: 01/30/2015, gender: female, height: 130 cm, weight: 121 lb, BMI: 32.5 kg/m², BSA: 1.44 m²) and a 'Pre-existing settings table' section with 'All catheters inserted during the procedure were removed.' and 'The patient tolerated the procedure well and was discharged from the lab.' The 'Procedure narrative' section contains two numbered items: '1. Initial setup. The patient was brought to the laboratory in the fasting state. Pulse oximetric signals were monitored.' and '2. Skin preparation. The planned puncture sites were shaved and prepped with sterile water in the usual sterile manner.' A red arrow points from the 'sterile water' text field in the 'Prep solution' dropdown to the second item in the 'Procedure narrative' section.



With a *checkbox* you can enter a single finding into the report. *IV accessed obtained* is an example of a *checkbox*.

The screenshot displays a medical software interface with a dark blue header and a light grey sidebar. The main area is divided into two panels: 'Study' on the left and 'Findings' on the right. The 'Study' panel contains several sections: 'Study data', 'Procedure narrative', and 'Discharge'. The 'Procedure narrative' section has a sub-section 'Initial setup' with a table of items. The 'Findings' panel has a 'Report' tab and contains sections for 'Labs, prior procedures', 'Patient status, risk factors', 'Study data', 'Pre-existing settings table', 'Procedure narrative', 'Adverse outcomes', and 'Recommendations'. A red arrow points from the 'IV access obtained' checkbox in the 'Initial setup' table to the text 'Intravenous access was obtained. Pulse oximetric signals were monitored.' in the 'Procedure narrative' section of the report.

Study data	
Consent	Item recorded
Study completion	
Fluoroscopy time (min)	
Medications given	
Cardiac medications	
Noncardiac medications	
Total dose of this medication	
Dose	
Dose units	mg

Procedure narrative	
Initial setup	Select New
Fasting state	Fasting
IV access obtained	<input checked="" type="checkbox"/>
Physiologic monitoring	Pulse oximetry
Ground pad	R thigh
Defib pad position	Anterior-apical
Skin preparation	Select New
Skin prep locations	
Skin preparation	2 items recorded
Prep solution	sterile water
Local anesthesia	
Location	Access
Agent	Lidocaine
Concentration (%)	

**Procedure narrative (cont'd)**  
Sedation ▶  
Sedation type: Moderate sedation  
Electrode/catheter access ▶

**Adverse outcomes**  
No complications   
Complications ▶  
Adverse outcomes ▶

**Discharge**  
Patient disposition ▶  
Discharged to: Home  
Discharge/follow-up plans  
Discharge: Same day  
Patient alerted to...: Bleeding  
For urgent issues call: Procedural cardiologist  
Patient instructions given:   
Follow-up appointment ▶  
Physician: Primary cardiologist  
Timing:

**Findings Report**  
**Labs, prior procedures**  
Permanent pacemaker system implantation.  
**Patient status, risk factors**  
ASA risk class II (procedure in patient with mild systemic disease). No risk factors for vascular disease.  
**Study data**  
Patient is 55 yr old. Patient birthdate: 12/19/1959. Study date: 01/30/2015. Gender: female. Height: 130 cm. Height: 51.2 in. Weight: 55 kg. Weight: 121 lb. BMI: 32.5 kg/m<sup>2</sup>. BSA: 1.44 m<sup>2</sup>. Pacemaker implantation. Elective. The risks, benefits, and alternatives to the procedure were explained to the patient and informed consent was obtained.  
**Pre-existing settings table**  
All catheters inserted during the procedure were removed. The patient tolerated the procedure well and was discharged from the lab.  
**Procedure narrative**  
1. Initial setup. The patient was brought to the laboratory in the fasting state. Intravenous access was obtained. Pulse oximetric signals were monitored.  
2. Skin preparation. The planned puncture sites were shaved and prepped with sterile water in the usual sterile manner.  
**Adverse outcomes**  
There were no complications.  
**Recommendations**  
New recommendation

You can also record multiple findings with a single click using a *macro*, which is designated by the lightning bolt icon. Below, the discharge instruction of *Bleeding/swelling/infection alert* is an example of a *macro*.

The screenshot displays a medical software interface with a dark blue header and a white main content area. The header includes a search bar and navigation tabs: History, ECG, Study, Device, Electrophysiology, Conclusions, Findings, and Report. The 'Conclusions' tab is active, showing 'Impressions recommendations for EPS, device studies'. The interface is divided into several columns:

- Intervals and conduction:** Lists various conduction parameters with dropdown menus (e.g., Sinus node function: Normal, AVN conduction: Normal).
- Impressions:** A section for recording findings.
- Recommendations:** Lists actions like 'Continue anticoagulation' and 'Stop anticoagulation' with lightning bolt icons.
- Drugs:** Lists 'Continue antiarrhythmics' and 'Stop antiarrhythmics' with lightning bolt icons.
- Discharge (cont'd):** Lists discharge instructions, with 'Bleeding/swelling/infection alert' highlighted in blue and a red arrow pointing to it. This item has a lightning bolt icon.
- Findings/Report:** Contains patient information (ASA risk class II, patient birthdate, etc.), study data, procedure narrative, and adverse outcomes. A finding is recorded: 'The patient should be alert for bleeding, swelling, or signs of infection.' with a lightning bolt icon.

It is easy to locate the data entry form for any recorded finding. Simply select it from the *Findings* or *Report* viewers and the appropriate data entry form will appear.

The screenshot displays a medical software interface with a dark blue header containing navigation options: SEARCH, UNDO, REDO, HELP, and OPTIONS. Below the header, a menu bar includes 'Index', 'Study', 'Device', 'Electrophysiology', 'Conclusions', 'Findings', and 'Report'. The main content area is split into two panels. The left panel, titled 'Impressions recommendations for EPS, device studies', contains several expandable sections: 'Intervals and conduction' (with sub-sections for Atrial and retrograde, and Ventricular and retrograde), 'Impressions', 'Recommendations', 'Anticoagulation', and 'Drugs'. The right panel, titled 'Pacemaker Implantation', contains patient information (Barbara Allen, MRN: #1366354, Accession: #1110287968abc, Study date: 01/30/2015, Birth date: 12/19/1959, Age: 55 yr, Height: 130 cm, Weight: 55 kg, BSA: 1.44 m²), physician information (Responsible, Referring, and Ordering physicians), and clinical notes. The 'History' section includes 'PMH: Myocardial infarction (08/13/2014)', 'Functional status: ASA risk class II', and 'Risk factors: No risk factors for vascular disease'. The 'Labs, prior tests, procedures, and surgery' section lists 'Permanent pacemaker system implantation'. The 'Study data' section includes 'Study status: Elective', 'Consent: The risks, benefits, and alternatives to the procedure were explained to the patient and informed consent was obtained', and 'Pre-existing pacing settings: Mode VVI'. The 'Procedure' section describes the initial setup and skin preparation. The 'Study completion' section states that all catheters were removed, the patient tolerated the procedure well, and there were no complications. A mouse cursor is visible over the 'Mode VVI' field.



[www.ascendhit.com](http://www.ascendhit.com)

Phone (Toll Free): 844-413-2610

Email: [information@ascendhit.com](mailto:information@ascendhit.com)

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