

# 1

## Task No. 1

### PCN Anatomy

1. Use a 15 cm needle to mark the following organs on the 3D image by touching the surface of the puncture pad at the proper location with the tip of the needle:

- Left lung
- Left 11th rib
- Left 12th rib
- Spleen
- Colon

2. Press the Fluoroscopy foot pedal to see the predicted target of the needle in the 3D image.

3. When the needle is in the proper location, press the Tools foot pedal to mark the target organ.

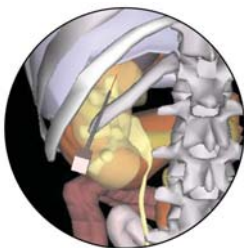
4. Fill in the organ name in the Location field for each snapshot in the trainee report.

#### Note:

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the 3D image

#### Main Goals:

PCN anatomy  
Trainee report



Created in collaboration with:

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## 2

## Task No. 2

**PCN Anatomy – under fluoroscopy guidance**

1. Use a 15 cm needle to mark the following organs under fluoroscopy guidance by touching the surface of the puncture pad at the proper location with the tip of the needle:

- Left lung
- Left 11th rib
- Left 12th rib
- Spleen
- Colon

2. Press the Fluoroscopy foot pedal to see the fluoroscopy image.

3. When the needle is in the proper location, press the Tools foot pedal to mark the target organ in the fluoroscopy image.

4. Fill in the organ name in the Location field for each snapshot in the trainee report.

**Note:**

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the fluoroscopy image

**Main goals:**

PCN anatomy under fluoroscopy guidance

Trainee report



*Created in collaboration with:*

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**Task No. 3**

**Identifying and puncturing different calyces**

**1. Advance the needle under fluoroscopy guidance into the following calyces:**

- Upper pole posterior calyx
- Upper pole superior calyx
- Middle pole posterior calyx
- Middle pole lateral calyx
- Lower pole posterior calyx
- Lower pole inferior calyx

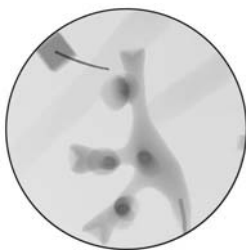
**2. When the needle is in the proper position, press the Aspiration button.**

- The fluid in the syringe indicates the needle tip location:
  - Yellow fluid – the collecting system
  - Red fluid – blood vessels
  - Empty syringe - not in the collecting system
- Pressing the Aspiration button automatically takes a snapshot of the fluoroscopy image
- If you hit one of the calyces in the list - a message at the bottom of the screen will indicate the calyx description

**3. Fill in the correct calyx description in the Location field for each snapshot in the trainee report.**

**Note:**

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the fluoroscopy image



**Main goals:**

- Anatomical identification
- Needle manipulation skills under fluoroscopy guidance
- C-arm control skills
- Trainee report

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**Task No. 4 Correct needle access to calyces**

**Use a needle to pop the balloons in the calyces:**

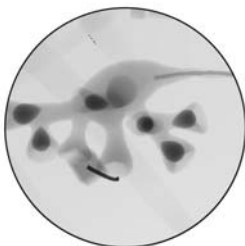
1. Access the calyx with the needle through the tip of the calyx.
2. Advance the needle into the calyx and try to pop the balloon.
3. Fill in the correct calyx name in the Location field for each snapshot in the trainee report.

**Note:**

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the fluoroscopy image

**Main goals:**

Pop 7 balloons located in different calyces  
 Needle access through the tip of the calyx  
 Needle manipulation skills under fluoroscopy guidance  
 C-arm control skills  
 Trainee report



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**Task No. 5 Manipulating a guide wire in the kidney**

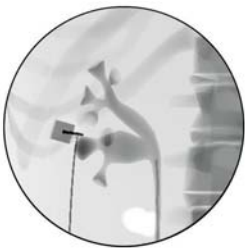
1. Select an 18 gauge needle and puncture the chosen calyx for best access track according to the location of the stone.
2. Manipulate a hydrophilic guide wire through the needle by the stone into the renal pelvis.
3. Take the needle out.
4. Insert an angled (Kumpe) catheter over the guide wire in order to manipulate the wire from the renal pelvis down the ureter.
5. Take snapshots of:
  - Wire in the calyx
  - Wire in the renal pelvis
  - Wire in the ureter
6. Fill in the correct term in the Location field for each snapshot in the trainee report.

**Note:**

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the
- fluoroscopy image

**Main goals:**

Create the best nephrostomy tract  
 Guide wire manipulation under fluoroscopy guidance  
 Manipulation of an angled catheter  
 Trainee report



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# 6

## Task No. 6

### Manipulating a guide wire in the kidney

Use a guide wire to collect fish from different locations in the collecting system:

1. Select an 18 gauge needle and access the kidney from the most convenient access point according to the location of the fish according to the location of all of the fish (use only one access point).
2. Manipulate a hydrophilic guide wire and collect the fish by touching them with the tip of the guide wire.
3. If necessary, use an angled (Kumpe) catheter.
4. Repeat steps 1-3 until you collect all of the fish.
5. Fill in the correct term in the Location field for each snapshot in the trainee report.

#### Note:

- Use the arrow buttons on the left side of the screen to rotate the C-arm and to move it
- Use the Image control on the right side of the screen to manipulate the fluoroscopy image

#### Main goals:

Collect 6 fish located in: lower pole inferior calyx, lower pole anterior calyx, upper pole lateral calyx, renal pelvis, ureter and urinary bladder.

Guide wire manipulation under fluoroscopy guidance

Manipulation of an angled catheter

Trainee report



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