

# Comprehensive Photography Protocol

## General & Specific Guidelines for Photographing Injuries in Older Adults

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Improving Recognition of Elder Abuse through Analysis of Highly Adjudicated Cases  
Injury Patterns in Elderly Accidental Fallers Presenting to the Emergency Department  
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## **Table of Contents**

Important procedures & Etiquette	1
General Photographing techniques	2
Protocol Overview	4
Specific Protocol: Photographing the Skull/Brain Region	5
Specific Protocol: Photographing the Maxillofacial/ Dental/ Neck Regions	7
Specific Protocol: Photographing the Arms	9
Specific Protocol: Photographing the Hands	11
Specific Protocol: Photographing the Legs	13
Specific Protocol: Photographing the Feet	16
Specific Protocol: Photographing the Back	18
Specific Protocol: Photographing the Abdomen, Pelvic, and Buttocks Regions: Suggestions for Physicians	19
References	21

## **Important Procedures**

*Please have at least two Research Associates present whenever photographing injuries. Please ensure that at least one of the participating RAs is of the same gender as the subject. Otherwise, a chaperone from the care team or ED staff of the same gender as the subject must be present during photography.*

*If there are injuries to the Chest, Lower Abdomen, Pelvic or Buttocks regions, a member of the care team must take these photos.*

## **Etiquette / Sensitivity to Subjects**

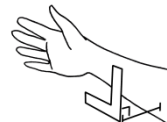
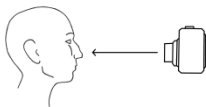
*Keep the subject as covered as possible at all times*

*If you need to shift clothing to take a picture of the injury, place a blue sheet over the exposed area making sure to only have the injury visible.*

*Explain what you are doing as you are doing it (“Now I am going to take a picture of your left arm.”)*

**General Photographing Techniques**

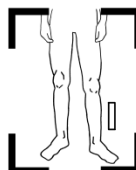
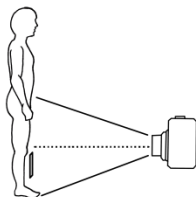
*Take all pictures at a 90 degree angle and at the same level as the injury to get a straight-on, non-distorted shot*



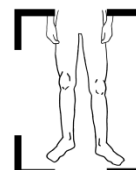
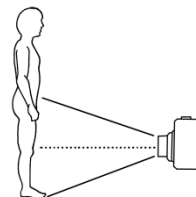
*Always hold the ruler straight and do not bend to wrap around the body part being photographed. Hold the ruler 1-2" above the body part being photographed. Ensure that the ruler is not covering up any part of the injury*

**For each injury, take four photos**

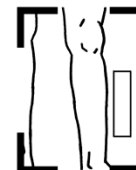
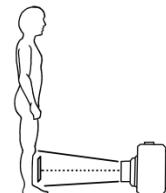
**#1** *Distance Photo with Ruler*



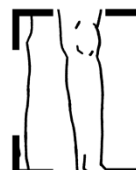
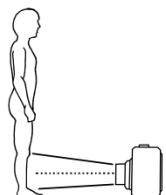
**#2** *Distance Photo without Ruler*



**#3** *Close-up Photo with Ruler*



**#4** *Close-up Photo without Ruler*

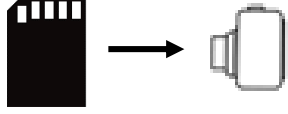


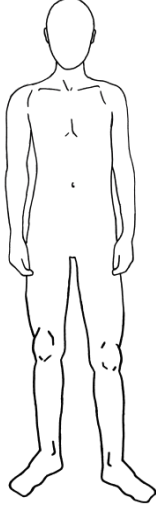
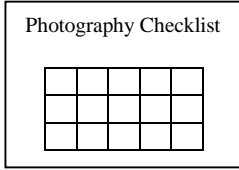


**For small injuries (less than ~ 3cm in length), please take additional super-close-up photos:**

- *Keep the camera in the exact same position as when taking close-up photographs.*
- *Use Zoom function to place injury in majority of viewfinder.*
- *Document zoom setting used. Only use the optical zoom function.*
- *Take photographs (#5, #6) with and without ruler*



**Protocol Overview**

	<p>1. <i>Place the blank SD card from the manila envelope into the SD card slot</i></p>
	<p>2. <i>Turn the Camera On</i></p> <p>3. <i>Turn the Flash Off</i></p>
	<p>4. <i>Take the ruler with color spectrum out of the manila envelope.</i></p> <p>5. <i>Take a picture of the ruler ensuring that no other people or objects can be seen in the image.</i></p>
	<p>6. <i>Identify which body regions you will need to photograph</i></p> <p>7. <i>Locate the section for the appropriate body region section within this protocol</i></p> <p>8. <i>Per protocol instructions, please take at least four photographs in each position indicated.</i></p>
	<p>9. <i>After the photographs have been taken please complete the Photograph Checklist.</i></p>

## Photographing the Skull

*Specific guidance for framing distance photographs of the skull: You should stand three feet away from the subject for each of these photographs. In the camera view, you should be able to see from the top of the head to the shoulders and each side of the head.*

*Specific guidance for framing close-up and super-close-up photographs of the skull: As landmarks on the skull are often difficult to identify, clear and complete documentation of all close-up and super-close-up photographs on the Photography Checklist is critical.*

### **4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3: Close-up photo with ruler
- #4: Close-up photo without ruler

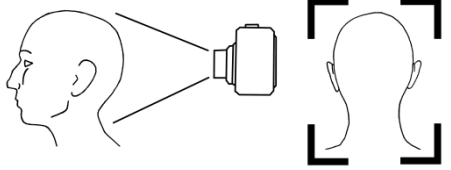
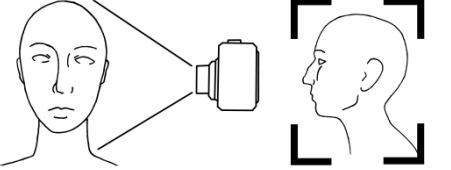
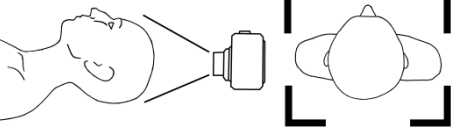
### **ZOOM** **Additional super-close-up Super close-ups for**

- Use Zoom function to place injury in majority of viewfinder.
- Document zoom setting used.
- Take photographs with (#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Skull**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject sit if possible. Stand behind the subject facing the back of their head with your shoulders parallel to theirs.</p>	<p>Back of the head*</p>
	<p>Stand next to the subject on the side of the injury so that your shoulders and theirs are perpendicular. The subject can remain lying down or sitting during this photograph</p>	<p>Side of the head</p>
	<p>Have the subject lie down if possible. Stand behind the subject facing the back of their head with your shoulders parallel to theirs.</p>	<p>Top of head</p>

\* This view can also be used to photograph the back of the neck



## Photographing the Face & Neck

**Specific guidance for framing distance photographs of the face and neck:** You should stand three feet away from the subject for each of these photographs. In the camera view, you should be able to see from the top of the head to the shoulders and each side of the head.

**Specific guidance for framing close-up and super-close-up photographs of the face:**

- **General-** To photograph the face you may have to change angles more often. Ensure that the camera angle is always at 90° to the injury and document well.
- **Eye-** When photographing the eye make sure to take at least 2 photos where the eyebrow to zygoma and from the nose bridge to the temple can be seen. If closer photos are needed make sure that these are documented well.
- **Check-** When photographing the cheek make sure to take at least 2 photos where the nose to the hairline and the eye to the chin can be seen. If closer photos are needed be sure to document well.
- **Mouth-** When photographing the mouth make sure to take at least 2 photos where the entire mouth can be seen. If injury to lips ensure that you take 2 photos with the subject's mouth closed and an additional 2 photos with their mouth open.

### **x4 4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3: Close-up photo with ruler
- #4: Close-up photo without ruler

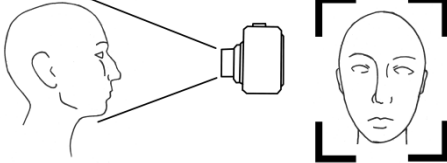
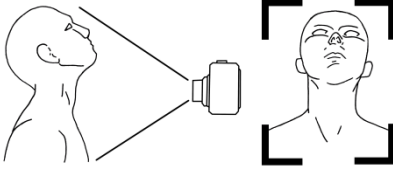
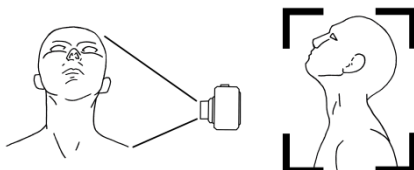
### **ZOOM** **Additional super-close-ups for small injuries**

- Use Zoom function to place injury in majority of viewfinder.
- Document zoom setting used.
- Take photographs with(#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Face/ Neck**

Diagram	Description	Injury Locations Appropriate For
	<p>The subject can stay in whatever position is most comfortable as long as their face is forward. If they are laying on one side please ask them to lay on their back or to sit up if it is comfortable to do so.</p> <p>Always stand directly in front of the subject so that your shoulders are parallel.</p>	<p>Face</p>
	<p>The subject can stay in whatever position is most comfortable as long as their face is forward. If they are laying on one side please ask them to lay on their back or to sit up if it is comfortable to do so. Ask the subject to raise their chin up toward the ceiling.</p> <p>Always stand directly in front of the subject so that your shoulders are parallel.</p>	<p>Center of neck</p>
	<p>The subject can stay in whatever position is most comfortable as long as their face is forward. If they are laying on one side please ask them to lay on their back or to sit up if it is comfortable to do so. Ask the subject to raise their chin up toward the ceiling.</p> <p>Stand to the side of the subject so that your shoulders are perpendicular.</p>	<p>Side of Neck</p>

## Photographing the Arms

**Specific guidance for framing distance photographs of the arm:** You should stand three feet away from the subject for each of these photographs. In the camera view, you should be able to see from the top of the shoulder to the fingertips and the entire width of the arm.

**Specific guidance for framing close-up and super-close-up photographs of the arm:** As landmarks on the arm are often difficult to identify, clear and complete documentation of all close-up and super-close-up photographs on the Photography Checklist is critical.

### **X4** **4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3: Close-up photo with ruler
- #4: Close-up photo without ruler

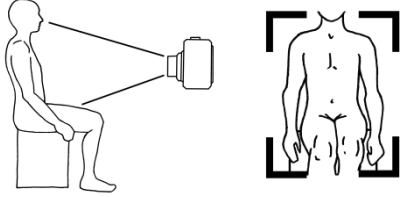
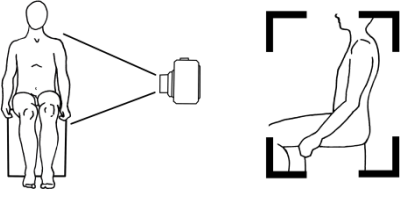
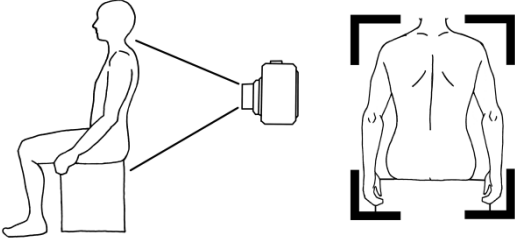
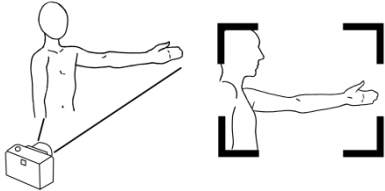
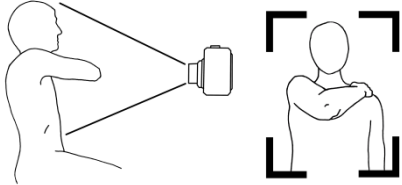
### **ZOOM** **Additional super-close-ups for small injuries**

- Use Zoom function to place injury in majority of viewfinder.
- Document zoom setting used.
- Take photographs with (#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Arm**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject sit with their arm at their side and relaxed. Stand in front of the subject facing them with your shoulders parallel to theirs, and position yourself directly in front of the injured arm.</p>	<p>Radial / anterolateral surface</p>
	<p>Have the subject sit with their arm at their side and relaxed. Stand directly to the side of the subject, so that their shoulders and your shoulders are perpendicular.</p>	<p>Dorsal / lateral surface</p>
	<p>Have the subject sit with their arm at their side and relaxed. Stand behind the subject facing the back of their head with your shoulders parallel to theirs, and position yourself directly behind of the injured arm.</p>	<p>Ulnar / posterolateral surface</p>
	<p>Move to stand across the bed from the subject's injured arm. Stand so that their shoulders and your shoulders are perpendicular. Have the other RA stand directly in front of and to the side of the injured arm. Have the subject hold their arm straight out, thumb up and place their hand in the other RA's hand.</p>	<p>Volar / medial surface</p>
	<p>Have the subject take their hand with the injured arm and place it on their opposite shoulder. Stand directly in front of the subject.</p>	<p>Elbow</p>

## Photographing the Hand

**Specific guidance for framing distance photographs of the hand:** You should always stand next to the subject for these photos. Have the subject place their hand on the bed and hold the camera 3 feet (or as high as you can) above the hand.

**Specific guidance for framing close-up and super-close-up photographs of the hand:**  
None

### x4 4 photos of each injury

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3: Close-up photo with ruler
- #4: Close-up photo without ruler

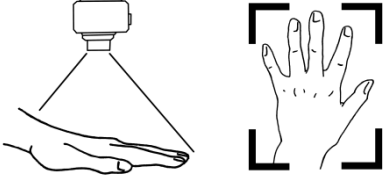
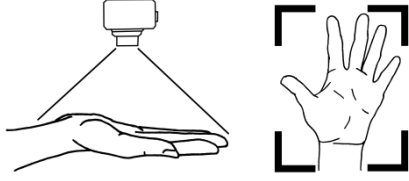
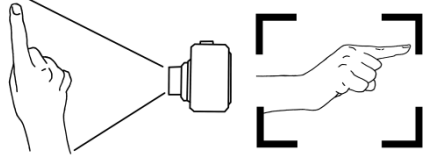
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- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Hand**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject splay their fingers and place their hand palm down on the bed.</p>	<p>Back of hand</p>
	<p>Have the subject splay their fingers and place their hand with the palm up on the bed.</p>	<p>Palm side of hand</p>
	<p>Have the subject raise the finger that is injured. Then take images of the side of the finger. You should be standing so that your shoulders and the finger are in parallel when photographing the side of the hand.</p>	<p>Side of fingers</p>

## Photographing the Leg

**Specific guidance for framing distance photographs of the leg:** *These photos should include the entire leg in the view of the image. You should be able to see from the hip to the bottom of the foot, and the entire width of the leg.*

**Specific guidance for framing close-up and super-close-up photographs of the leg:** *As landmarks on the leg are often difficult to identify, clear and complete documentation of all close-up and super-close-up photographs on the Photography Checklist is critical.*

### X4 4 photos of each injury

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3 Close-up photo with ruler
- #4 Close-up photo without ruler

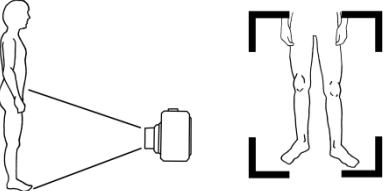
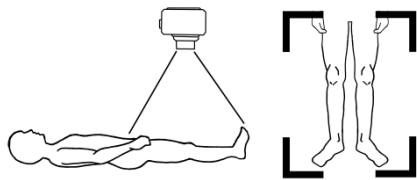
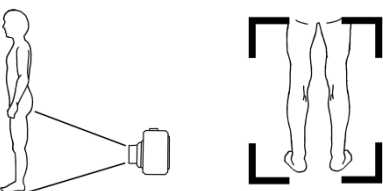
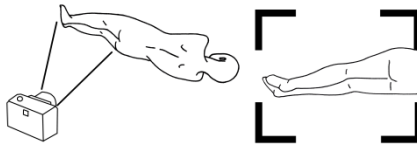
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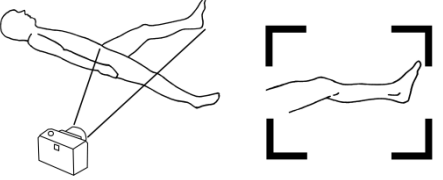
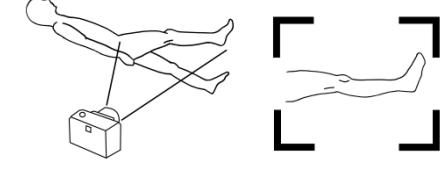
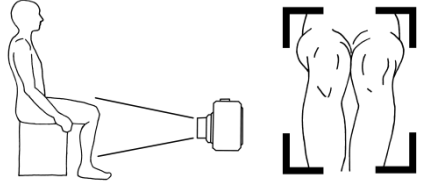

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Leg**

Diagram	Description	Injury Locations Appropriate For
	<p>If the subject is able to stand have them stand. Kneel in front of the subject so that your shoulders and theirs are parallel and so that the camera is at a 90° angle to the knee.</p>	<p>Front of leg- able to stand</p>
	<p>If the subject is unable to stand have them lay with their leg straight out in front of them. Stand next to the bed so that your shoulders and theirs are perpendicular. Do your best to hold the camera above the leg so that it is at a 90° angle to the front of the leg. Distance photos for this should try to include the whole leg, however if unable to get the camera high enough for that, take 2 photos from the hip to knee and knee to foot.</p>	<p>Front of leg- unable to stand</p>
	<p>If the subject is able to stand have them stand. Kneel behind the subject so that your shoulders and theirs are parallel and so that the camera is at a 90° angle to the knee.</p>	<p>Back of leg- able to stand</p>
	<p>If the subject is unable to stand have them lay on their uninjured side so that their injured leg is lying on top of the uninjured leg. Stand next to the bed so that your shoulders and their back are perpendicular. Be sure to monitor for subject discomfort.</p>	<p>Back of leg- unable to stand</p>



**Comprehensive Photography Protocol**  
 General & Specific Guidelines for Photographing Injuries in Older Adults

	<p>Have the subject lay down and raise the injured leg and place it in the hand of the other research associate. Stand on the opposite bedside as the injury so that your shoulders and their shoulders are perpendicular.</p>	<p>Inside of Leg</p>
	<p>Have the subject lay down and raise the injured leg and place it in the hand of the other research associate. Stand on the same bedside as the injury so that your shoulders and their shoulders are perpendicular.</p>	<p>Outside of leg</p>
	<p>Have the subject sit with their leg off the bed. Stand directly in front of them so that your shoulders are parallel to theirs.</p>	<p>Knee- able to sit</p>
	<p>If the subject is unable to sit have them lay on their back. Have them place their foot flat on the bed and bring it towards their torso so that their leg makes a triangle with the bed.</p>	<p>Knee- unable to sit</p>

## Photographing the Foot

**Specific guidance for framing distance photographs of the foot:** You should always stand next to the subject for these photos. Make sure the entire foot can be seen in the image.

**Specific guidance for framing close-up and super-close-up photographs of the foot:**  
None

### **x4** **4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3 Close-up photo with ruler
- #4 Close-up photo without ruler

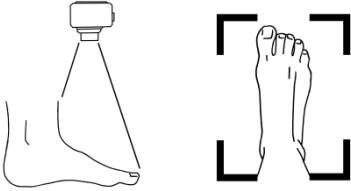
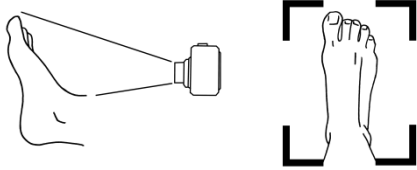
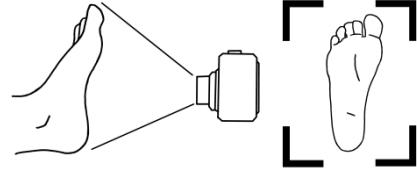
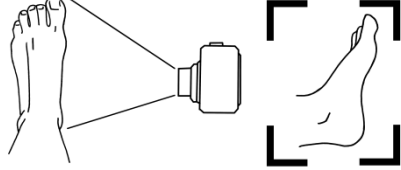
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- Document zoom setting used.
- Take photographs with (#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
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- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Foot**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject place their foot flat on the group, stand next to the subject so that your shoulders are perpendicular.</p>	<p>Top of the foot- able to place foot on floor</p>
	<p>Have the subject place their foot flat on the study manila envelope, stand next to the subject near their hip. Place the camera so that it is perpendicular to the foot.</p>	<p>Top of foot- unable to place foot on floor</p>
	<p>Have the subject place their foot flat on the study manila envelope, remove the envelope having them hold the position. Stand at the foot of the bed so that you are facing the subject and your shoulders are in parallel.</p>	<p>Bottom of the foot</p>
	<p>Have the subject place their foot flat on the study manila envelope, stand next to the subject's foot so that your shoulders are perpendicular.</p>	<p>Side of the foot</p>

## Photographing the Back

**Specific guidance for framing distance photographs of the back:** For the distance photos the entire back from shoulders to hips and the far side of each arm should be seen.

**Specific guidance for framing close-up and super-close-up photographs of the back:** There are not many landmarks on the back and as such it is very important that you clearly identify what photos are taken on the Photography Checklist.

**If multiple injuries to the back:** Please number these injuries on the body diagram and then take photos in the order indicated.

### **ZOOM 4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3 Close-up photo with ruler
- #4 Close-up photo without ruler

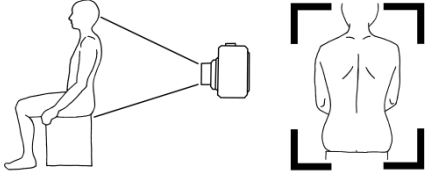
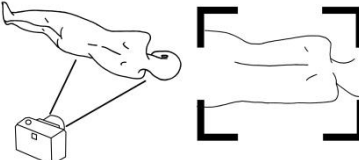
### **ZOOM Additional super-close-ups for small injuries**

- Use Zoom function to place injury in majority of viewfinder.
- Document zoom setting used.
- Take photographs with (#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injured Back**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject sit up and put their legs over the side of the bed. Stand directly behind them so that your shoulders are parallel to theirs.</p>	<p>Able to sit</p>
	<p>Have the subject lay on their side, whichever is uninjured. Stand behind them so that your shoulders are parallel with their back.</p>	<p>Unable to sit</p>

## Photographing the Chest, Abdomen, Pelvic and Buttocks Regions: Suggestions for Physicians

**Specific guidance for framing distance photographs:** Distance photographs are used to place an injury in the larger context of the body region. For the chest and abdomen region the shoulders and hips and each arm should be seen in the photo view, for the pelvic and buttocks regions the hips and tops of the thighs should be visible. This will allow for an understanding of where a specific injury is located.

**Specific guidance for framing close-up and super-close-up photographs of the back:** There are not many landmarks on the abdomen and as such it is very important that you clearly identify what photos are taken on the photography checklist.

It is also important to accurately document where the injuries are located on the body diagram for these regions.

If there are multiple injuries to an area, please number these injuries on the body diagram and then take photos in the order indicated.

### **x4** **4 photos of each injury**

- #1: Distance photo with ruler
- #2: Distance photo without ruler
- #3 Close-up photo with ruler
- #4 Close-up photo without ruler

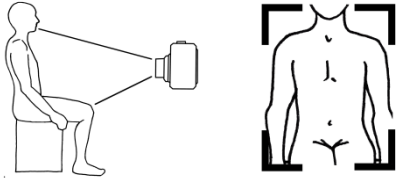
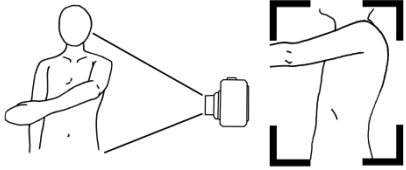
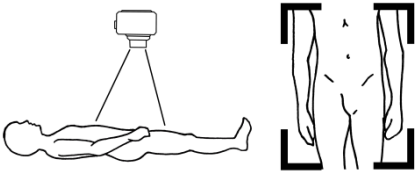
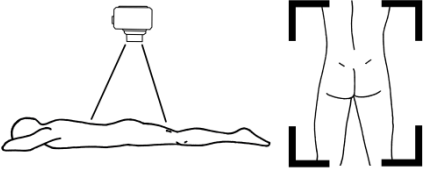
### **ZOOM** **Additional super-close-ups for small injuries**

- Use Zoom function to place injury in majority of viewfinder.
- Document zoom setting used.
- Take photographs with(#5) and without (#6) the ruler

### **There is no such thing as too many photographs!**

- Please photograph injuries with the patient in as many positions as necessary to fully display each injury!
- Of course, be sensitive that all subjects have recently suffered from a traumatic injury and movement / holding positions may cause pain
- If multiple photos of a single injury are taken make sure to follow the order listed above

**Subject Positioning for Photographing the Injuries on the Chest, Abdomen, Pelvis and Buttocks regions**

Diagram	Description	Injury Locations Appropriate For
	<p>Have the subject sit or lay down, whichever is comfortable, with their arms at their sides. If the subject is sitting, stand directly in front of them so that your shoulders are parallel. If you the subject is laying, stand next to the subject so that your shoulders are perpendicular.</p>	<p>Chest and Abdomen- Front</p>
	<p>Have the subject sit or lay down, whichever is comfortable. Have them lift the arm on the side of the injury and place it in the research associate's hand. Stand next to the subject so that your shoulders are perpendicular.</p>	<p>Chest and Abdomen- Sides</p>
	<p>Have the subject lay down flat on their back. If needed have them raise or move each leg as necessary. Hold the camera directly above the subject so that it is perpendicular to the injury.</p>	<p>Pelvis</p>
	<p>Have the subject lay down flat on their stomach. Hold the camera directly above the subject so that it is perpendicular to the injury.</p>	<p>Buttocks</p>

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