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Supine Positioning for Olecranon Fixation

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The olecranon is traditionally fixed with the patient in a lateral or prone position to facilitate access to the dorsum of the elbow and forearm. In the poly-traumatized multiply injured patients, these two positions may be untenable due to physiological constraints. However, performance of a dorsal surgical approach with fixation is easily performed these patients can often undergo procedures in the supine position. With proper positioning, the olecranon can be approached with the patient supine. without difficulty for the surgeon The key is an appropriately positioned arm board, elevated over the patient's chest.

The patient is placed supine on a reversed radiolucent table. The patient's The supine patient's head is positioned at the cranial corner of the table, ipsilateral to the injured extremity. as cranially on the table as possible, and tThe chesttorso is moved laterally so that the shoulder on the affected side is just off the edge of the table. One or two An armboardarm boards, with adjustable height, is are attached to the head of the table, cranial to the patient's head. They extending distally parallel with the patient's body (Fig. 1A). The arm board(s) can be adjusted in height and medially or laterally so that the arm is balanced above the patient's thorax and remains on the armboard without any device holding it in place (Fig. 1B). For a patients with a large or long forearms, two arm boards may be placed side-by-side.

Prepping and draping are done with the drapes placed over the armboardarm board(s) and under the arm and forearm. This permits a circumferential prep resulting in and a large sterile field;, and the arm wiwith arm will continue to rest on the armboard(s) without assistance.. Access for a dorsal incision is easy. Internal fixation is also facilitated, as the forearm is supported by the armboardarm board for posterior to anterior, medial to lateral, or lateral to medial drilling and screw placement in the proximal ulna.

Imaging is simplified with the arm supported this way. The C-arm is positioned at the head of the table, parallel to the operated arm. Lateral views are obtained with the x-ray beam horizontal, and the C-arm's anode under the drapes (Fig. 2). AP images are obtained by manually abducting the arm, manually with simultaneous extension of the elbow away from the table and armarm board. The C-arm is reoriented to a vertical positionrest.

Legends:

Fig 1 – A: Example of patient positioning before the armboard is preppedprep and draped; note that the armboardarm board is coming in over the patient's head and

can be adjusted medially or laterally to balance the upper extremity arm; 1B: clinical photograph of arm balanced on armboard arm board after prepping and draping.
1A



1B



Fig 2A: Clinical photograph of positioning for lateral imaging during



Fig 2B: intraoperative lateral imaging can be seen on C-arm monitors intraoperatively.



lateral imaging intraoperatively.