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Central Venous Pressure Monitoring—A Simple Device to Determine Zero Level

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Central venous pressure (CVP) is an important and useful variable in clinical monitoring. Following is a description of a simple device to determine CVP zero level.

Various devices such as rulers or bars are used to adjust zero level of monitoring equipment to the position of right atrium. We found the following method simple, accurate, and very satisfactory. We use transparent plastic tubing, found in any operating room, fill it with water, and then use as a U tube. That is, when the water level in one arm of U tube is at the level of right atrium, the water level in the other arm indicates zero level of the monitoring device (fig. 1). There are two practical reference points to estimate the level of the right atrium: 1) mid-axillary line; 2) the midpoint of the anterior-posterior di-

ameter of the thorax at the level of the fourth intercostal space.

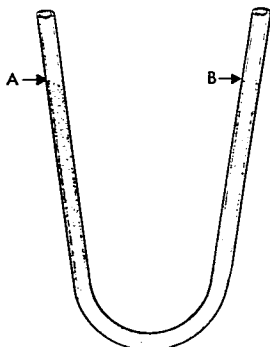


FIG. 1. To adjust zero level of CVP monitoring device: A, the water level of one arm of a disposable plastic transparent connecting tube is positioned at the level of the right atrium (supine position); B, the water level in the other arm of the U tube indicates the zero level of the CVP monitoring device.

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