

anesthesia is approximately one hour. This is especially advantageous in preventing "bucking" after intubation and considerably reduces postoperative coughing following endoscopic instrumentation.

The self-powered atomizer has other useful clinical applications in a variety of nose and

throat procedures. It has also been used for transvaginal insufflation of specific medications for certain gynecological disorders. The activated spray is utilized by the nursing service to assure oral hygiene in those patients who, by themselves, are unable to use mouth antiseptics.

## Portable IPPB with the Stryker Frame

DONAL F. SWEENEY, M.D.,\* AND FRANK W. GARRISON, M/SGT. USAF

The Air Evac Litter Mount † (Portable IPPB)<sup>1</sup> has completely replaced the bulky SAM Lung<sup>2</sup> in transportation of apneic patients in the USAF Aeromedical Evacuation system operated by the Military Airlift Com-

\* Present address: Guthrie Clinic, Ltd., Sayre, Pennsylvania.

Received from the Inhalation Therapy Service, David Grant USAF Hospital, Travis AFB, California. The views expressed in this article are the personal opinions of the authors and are not to be construed as a statement of official United States Air Force policy.

† Available from Bird Corporation, Palm Springs, California.

mand.‡ This device would seem to lend itself to ready use in civilian emergencies and patient movement.

Because of the recent necessity of transporting an apneic patient on a Stryker Turning Frame, an adaptor for the Air Evac Litter Mount was designed and has been successfully used in a helicopter airlift.

The adaptor was built by welding two steel bars to a mounting which slides easily into

‡ Dannemiller, J., and Nareff, M. J.: Personal communication.

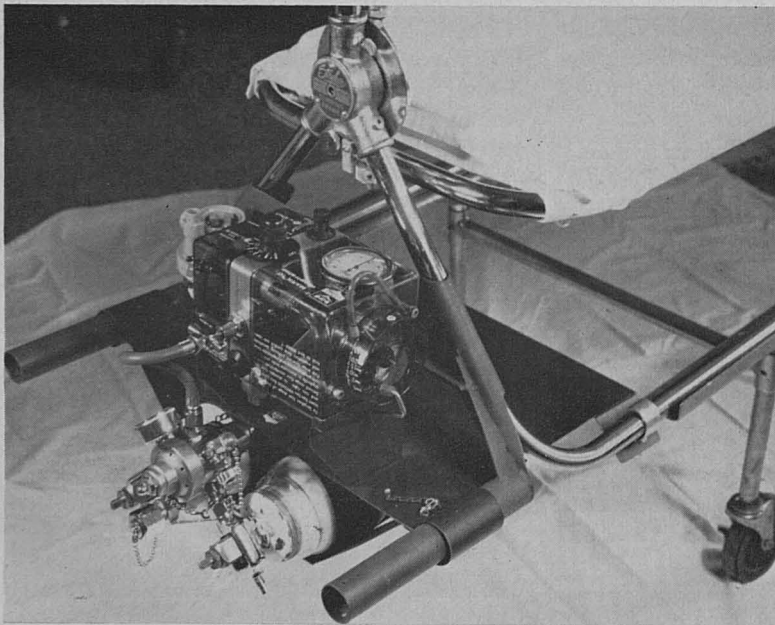


FIG. 1. The adaptor on the Stryker Frame (weight, 4 pounds; 10 inches between steel bars), with the Air Evac Litter Mount in place for use.

place on the front support runners of the Stryker Frame. The litter mount can then be easily secured to the bars and runners (fig. 1). Similar devices could easily be adapted to other types of hospital or ambulance litter carts.

REFERENCES

1. Sweeney, D. F., and Garrison, F. W.: Portable intermittent positive pressure apparatus, *ANESTHESIOLOGY* 27: 508, 1965.
2. Wilson, H. T.: Air transportation of patients with poliomyelitis, *J. Aviat. Med.* 29: 27, 1958.

## A Positioning Guide for Intrathecal Blocks

RITA GOLDMAN JACOBS, M.D.,\* AND HWA KUO KING, M.D.\*

A simple guide made of exposed roentgen-ray film has been useful in improving the results of intrathecal nerve blocks.

One of the difficulties in obtaining relief of pain with intrathecal alcohol or phenol is the proper positioning of the patient. The nerves to be blocked must be uppermost when hypobaric absolute alcohol (sp. gr. 0.76) is used, and must be lowermost when hyperbaric phenol in glycerin (sp. gr. 1.27) is used. With our technique the posterior root is blocked in the subarachnoid space at the site of entry of the nerve through the intervertebral foramen. This is accomplished by placing the patient so that the proper vertebral level is over the "break" in the table. The insertion of the lumbar puncture needle should be as close to this point as is feasible. As soon as the drug is instilled, the patient is then tilted 45 degrees from the lateral position to concentrate the drug on the posterior roots and to spare the anterior roots. The table is simultaneously flexed to elevate or depress that portion of the vertebral column, depending on whether hypobaric or hyperbaric solutions are used.

Since these changes in position must be accomplished promptly and accurately, it is helpful to have a guide indicating relative variation from the horizontal. To achieve this, we use transparent roentgen-ray film on which one vertical and several horizontal lines are drawn. Figure 1 shows this device attached to an intravenous pole as close to the patient as pos-

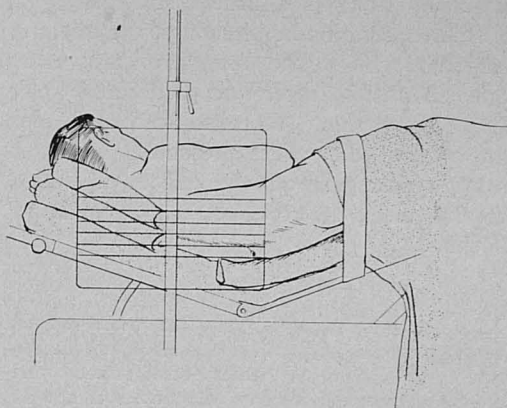


FIG. 1. Patient positioned for hyperbaric intrathecal block at second lumbar segment with positioning guide in place.

sible and demonstrates how the apex or nadir of the patient's vertebral column can be localized. This patient is in position for blockade of the posterior roots of the second and third lumbar nerves on the left with a hyperbaric solution. The lumbar puncture needle is shown in place in case additional medication must be instilled. It also helps mark the location of the skin level of the lumbar second-third interspace.

Such a device is easily made, inexpensive and portable. It is valuable in establishing an accurate position promptly and maintaining the optimum position throughout the thirty to sixty minutes after the instillation of drug. We believe this device to be partly responsible for the increased efficacy and reduced complications of our intrathecal blocks.

\* Department of Anesthesiology, Memorial Sloan-Kettering Cancer Center, New York, New York.