The ideal frequency of nebulized 3% saline is unclear, though most studies have found multiple daily doses for several days to be effective as opposed to repeated inhalations over a short period [4]. This possibly can serve as a major advantage over inhaled epinephrine where repeated use can be limited by tachycardia and/or rebound mucosal edema. Ralston, *et al.* [8] in their study found a low rate of adverse events when hypertonic saline was used without adjunctive bronchodilators. Such reports; however, are far and few as most studies on hypertonic saline in bronchiolitis including the current one [5] have combined it with some bronchodilator to counter the theoretical risk of precipitating bronchospasm.

The airway clearance properties, safety profile, feasibility of repeated administrations, and cost-effectiveness of hypertonic saline make it an ideal intervention in a setting where most of the studied interventions have failed. Though the current body of evidence seems to favor the routine use of nebulized 3% saline in hospitalized infants with mild to moderate acute bronchiolitis, the study by Sharma, *et al*. [5] has provided more food for thought. The questions that need to be addressed before it becomes standard of care for acute bronchiolitis are its generalizability in every set up, its utility in outpatients and severe disease, the need for adjunctive bronchodilator therapy, and the optimal concentration and dosing intervals.

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Position of Central Venous Catheters in Children

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The correct positioning of central venous catheters in pediatric patients is a task not easily achieved and is complicated by the fact that the patients differ considerably in size depending on their age, anthropometry and nutritional status. The study by Witthayapraphakorn, *et al*. [1] adds to the scarce literature on this topic.

While there is no clear consensus regarding the position of the tip of central venous catheters (CVC) in the superior vena cava (SVC) [2], the right atrium (RA) should definitely be avoided due to the risk of vascular/cardiac perforation. The SVC at the level of the carina is preferred by some authors, while others prefer the junction of the right atrium with the SVC (RA-SVC junction). Autopsy studies on infants have shown that the carina is almost always located above the pericardial reflection on the SVC [3]. Thus using the carina as a landmark for placement of the tip of the CVC reliably excludes placement in the RA. The carina is relatively easy to identify either by the anatomical landmark method or by radiological evaluation.

Studies in children to guide the positioning of CVC

are scarce [4-6]. Andropoulos, *et al.* [4] used external anatomical landmarks or transesophageal echo-cardiography (TEE) to guide CVC placement in 456 children undergoing surgery for congenital heart disease (CHD) and checked the placement on the first postoperative chest *X*-ray. With this data, formulae for the correct insertion length for right-sided internal jugular vein (IJV) and subclavian vein (SCV) catheters were made based on the patient's height. The formulae predicted the correct catheter length, i.e., position above the RA, in 97%. Andropoulos' formulae found wide acceptance and are widely used. In a study on 60 preoperative infants and children by Yoon, *et al.* [5], right IJV catheters were positioned using TEE. They formulated a guideline to correctly position a right IJV catheter in 97.5% patients with an accuracy of 95%, in children with height between 40 and 140 cm. Similarly, in 90 children <5 years age, Na, *et al.* [6] placed right IJV catheters using the sternal head of the clavicle and the nipples as external landmarks to determine the position of the carina. This method required no formula or any pre-operative chest *X*-ray, or any other sophisticated methods like TEE or electrocardiographic guidance.

In contrast to the above studies, Witthayapraphakorn, *et al*. [1] have measured the actual distance from the point of insertion of a right IJV catheter to the position in the SVC to be correctly located above the RA, on computerised tomography (CT) images of 165 children. They measured the distance from the presumed skin puncture site to the SVC at the level of the carina and the RA-SVC junction. Inter-and intra-observer agreement was good and the study was adequately powered. With the data thus obtained, using regression analysis, a formula was devised to calculate the depth of the right IJV catheter based on the age in months and body surface area. Finally, for ease of recall, simple recommendations for length of catheter insertion have been made for different ages (not using the complicated formula) starting at 6.5 cm at 1 year of age and increasing by 0.5 cm till 12 years of age, 13 cm at 13 years and remaining at 14 cm beyond this age.

Unfortunately, the study gives no information for CVC placements for the left IJV/SCV or right SCV catheters. The number of children <1 yr age was only 8 and hence, the values do not represent an adequate sample. Perhaps, keeping this in mind, the authors' recommendations start from the age of one year. External validation of the recommendations is awaited.

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Anticonvulsants for Neonates: High Time We Were Seized of the Matter

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Seizures are a common problem in the neonatal intensive care unit (NICU). Surprisingly, there is scant evidence regarding the optimal anticonvulsant for treating neonatal seizures [1]. In the USA, of the neonatal seizures that are treated with a non-benzodiazepine drug, phenobarbitone accounts for 76% and phenytoin for 16% [2]. Until now, the only good quality randomised controlled trial (RCT) comparing phenobarbitone and phenytoin was by Painter, *et al*. [3] in 1999. Pathak, *et al*. [4] have conducted a much-needed