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In reply:—The opportunity to respond to the point raised by Freund and Ward[1] and by Ikada and Schweiss in this issue of ANESTHESIOLOGY regarding similarities in drug packaging is greatly appreciated.

The problem in both cases centers around removal of the syringes from the sealed carton before they are ready to be used. The handling of syringes in such a manner is not in accord with either the written instructions on the carton or with the intended use of the syringes in emergency situations. The printed instructions on the carton clearly state, "Do not assemble until ready to use," and "Medication and fluid path and needle are sterile and nonpyrogenic if caps and needle cover are in place and package is intact." It is essential that these instructions be followed. Additionally, the intact carton acts as a tamper-proof system to assure that the protective vial and syringe caps have not been removed and replaced.

The cartons as well as the syringes are designed to be functionally efficient for emergency use. The label on the carton is easy to read and contains the name of the medication, strength, and expiration data. The carton is easy to open; just rip off the tab, tip the carton forward and the vial and injector slide right into your hands. The vials are identical in shape but not in size and are quite prominently labeled with the name of the medication they contain. The opening of the carton, the removal of the componentry, the simultaneous removal of the protective caps, and the assembly of the vial and injector can be performed within a very few seconds.

In summary, the design of the syringes and the packaging represents the current state of the art and provides equipment that not only is convenient and efficient to use in emergency circumstances, but also assures a high degree of safety if used according to instructions.

Drs. Ikada and Schweiss have made recommendations in regard to label color coding of emergency drugs. Color coding of medical products is an area of continuing controversy. Reports in the published literature indicate that color coding contributes to increasing medication errors even though it is perceived by many to have potential benefits.[2] Color coding encourages reliance on drug identification by methods which detract from the only method that should be used when dispensing or administering medications; that is, reading the container label thoroughly and repeatedly. The use of color on packages and containers should serve only as a means of drawing the attention of the user to the label in order to read it before the drug or medication is administered. The label color should not be used as a basis for selecting a medication or an intravenous solution.

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Oxygenation during Mechanical Ventilation in Goats

To the Editor:—In a recent paper on the effect of mechanical ventilation with varying levels of PEEP on cerebral blood flow and cerebrospinal fluid pressure in goats, Doblar *et al.* reported arterial blood P_{O_2} values of 65–68 mmHg when the animals were ventilated with air at a tidal volume of 15 ml/kg, and a Pa_{CO_2} of 30 mmHg with zero end-expiratory pressure. These values are lower than the Pa_{O_2} values of 94.5 mmHg reported in spontaneously breathing goats.[2] Furthermore, animals with a Pa_{O_2} of less than 60 mmHg had already been excluded from the study. The authors state that the animals were paralyzed but give no details of the anesthesia or body position.

It is, however, well-known that most of the lung tissue

TABLE 1. Pa_{O_2} Changes with Body Position (A) and with PEEP (B) during Halothane Anesthesia and Mechanical Ventilation in Goats

	A		B	
	n = 7; $F_{I_{O_2}}$ = 1		n = 8; $F_{I_{O_2}}$ = 0.21	
	Supine ZEEP	Prone ZEEP	Prone ZEEP	Prone 8 cm H_2O PEEP
Pa_{O_2} mmHg (Mean ± SD)	151 ± 79	496 ± 71	91 ± 10	102 ± 7

in ruminants is situated in the dorsal part of the thorax and that the diaphragm lies at an oblique angle to the vertebral column. In the supine position the abdominal contents press backwards on the diaphragm, leading rapidly to collapse of dependent lung zones with resultant arterial hypoxemia. Our experience with goats is summarized in table 1. This shows that when the animals are ventilated with oxygen using a tidal volume of 22 ml/kg, oxygenation is well-maintained in the prone position, whereas there is a marked increase in alveolar-arterial O_2 tension difference in the supine position (A). Addition of PEEP to animals ventilated with air in the prone position produced little increase in arterial blood P_{O_2} (B).

Our recent practice is as follows: (1) Fast for 24 h and withhold water for four hours before anesthesia. (2) After induction, empty the rumen with a large bore tube and if possible, allow drainage to continue throughout the experiment. (3) Maintain tidal volumes of more than 20 ml/kg with a PEEP of 5–10 cmH_2O during surgery in the supine position. Hyperinflate to +30 cmH_2O for 3–6 breaths every 20–30 min. (4) When surgery is completed, turn to the prone position with forelegs folded back under the chest. Hyperinflate and maintain tidal volumes of more than 20 ml/kg using added CO_2 or a deadspace to maintain Pa_{CO_2} close to the normal value of about 35 mmHg.[2] With this technique it is possible to maintain normal Pa_{O_2} values without hyperinflation or PEEP for 30–60 min. For longer periods it may be necessary to hyperinflate the lungs at intervals.

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The Neonatal Neurologic and Adaptive Capacity Score (NACS)

To the Editor:—In his recent editorial, "A Critique of the Neonatal Neurologic and Adaptive Capacity Score (NACS),"[1] E. Tronick condemned the examination because, from his perspective, it probably would not prove to be "a useful clinical instrument" as "it is unlikely that it can be sensitive to the kinds of effects it hopes to detect."

As in many other aspects of medicine, this score is the result of a compromise, and will appear far too simple or too complicated according to the individual's personal tendencies and needs. According to Tronick, a psychologist and non-physician, this rapid clinical examination, which obviously does not test all of the neonate's capabilities and responsiveness, should not be used. However, since, as Tronick points out, there is no single test available that can *fully* assess a neonate, should the anesthesiologist, obstetrician, and pediatrician then simply measure neonatal acid-base balance and blood levels of anesthetic drugs without ever looking at the baby itself? We believe the NACS,[2] which modified and selected items from the Brazelton Neurobehavioral Assessment Scale (NBAS),[3] the Scanlon Early Neonatal Neurobehavioral Scale (ENNS),[4] and the Amiel-Tison Neurologic Evaluation,[5,6] provides the clinician with a potentially useful clinical instrument for looking at the baby itself. The items selected were those that were easy to elicit during the immediate postnatal period, were readily observable and simple to score, and had been shown previously to be sensitive to the effects of analgesia and anesthetic drugs as well as to birth asphyxia. No matter how simple our examination appears on the surface, subtle effects related to obstetric medication, birth trauma, or asphyxia should be ascertainable using this neurologic examination.

Almost all of Tronick's criticisms of our examination