GlideScope Video Laryngoscope and direct laryngoscope in paediatric patients with difficult airways–a pilot study. Anaesthesia 2010; 65:353–7

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In Reply:

We thank Xue *et al.* for their recent letter regarding our recent article[1] and are happy to respond to their questions and comments.

Their first question related to the number of neonates included in the study. We had two neonates in our study; one was randomized to the GlideScope (Verathon Medical, Bothell, WA) and the other to direct laryngoscopy (Heine, Dover, NH). We routinely use a size 1 Miller blade in the normal neonatal population without difficulty in our institution and reserve the size 0 mostly for premature neonates. Xue *et al.* further questioned our choice of blade size for the GlideScope Cobalt. Before conducting our study, we piloted various sizes of the GlideScope blade and found that the size 2 blade provided optimal views in our patient population. All our patients fell within the manufacturer body weight guidelines for the size 2 blade; however, manufacturer guidelines are not always consistent with individual patient requirements. The GlideScope device and blade sizes have evolved and have been redesigned several times. For example, a size 3 blade was recommended for patients weighing more than 10 kg at the time of our study. It would have been physically impossible to place a size 3 blade in the pharynx of a normal 11-kg 1-yr-old patient because of the blade's size. Recently, a new size 2.5 blade has been introduced, and weight guidelines have been adjusted accordingly. Manufacturer-suggested blade sizes in children should be accepted cautiously until validated by clinical evaluation.

Xue *et al.* state that optimum external laryngeal manipulation should be used with poor laryngoscopic views to improve visualization. We agree with this assertion, and optimum external laryngeal manipulation was permitted in our study and used when the view was poor. However, we did not track the number of maneuvers performed to optimize laryngoscopic view. Although this information may have been useful, we chose to capture this as a component of the time to best view. This could be one of the contributing factors to the difference in time to best view between the GlideScope and traditional direct laryngoscopy (median time GlideScope = 8.1 s, direct laryngoscopy = 9.9 s, $P = 0.03$).

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Whole Blood: More than the Sum of the Parts

To the Editor:

Dr. Weiskopf's editorial, "Reconstructing Deconstructed Blood for Trauma,"[1] should prompt serious examination of conventional blood banking practices, not just as they pertain to trauma, but also to other areas of patient care that involve significant blood component transfusion. He mentions two small trials in adult cardiac surgery that have had less-than-convincing results,[2,3] but he omitted one landmark study in pediatric cardiac surgery. Manno *et al.* at the Children's Hospital of Philadelphia, Pennsylvania, compared use of whole blood and "reconstituted" blood (packed erythrocytes, fresh frozen plasma, and platelets) in children undergoing cardiac surgery with cardiopulmonary bypass.[4] This study showed that in the highest risk group, children less than 2 yr of age having high complexity surgery, postoperative blood loss in the group receiving reconstituted blood was around twice that of the whole blood group. Very fresh whole blood did not have a significant advantage over whole blood stored for 24–48 h. In addition, they showed that the platelets in reconstituted blood had significantly more abnormal aggregation in response to adenosine diphosphate, epinephrine, and collagen, suggesting that preservation of platelet function may be one reason for the superiority of whole blood in treating the postcardiopulmonary bypass coagulopathy. Lavee *et al.* showed a similar effect of whole blood on preservation of platelet function by showing that platelet aggregation as assessed by electron microscopy after cardiopulmonary bypass in adult patients was restored by 1 unit of whole blood to a level equivalent to 8–10 platelet units.[5] It is not only patients (of trauma and otherwise) who would benefit from more widespread use of whole blood in terms of clinical outcome and limitation of their exposure to donors. Somewhat counterintuitively, use of whole blood may also help eke out a dwindling blood supply by being substantially more efficient than components, particularly platelets, which may have lost much of their efficacy in the process of being separated and stored apart. It will require effort by clinicians to convince the blood bank community that the whole is more than the sum of the parts.

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