

**Issue: Disposable Resuscitator Masks**

*Raised by:* Clinical Review process.

*Background:* During a resuscitation attempt, the disposable Bag-Valve-Mask resuscitator from an Emergency Response Kit (ERK) was used. When applying the facemask to the client, the mask was found to be misshapen, making it difficult to achieve conformity/seal to the face. The damage was most likely caused by compression of the mask in the ERK.

*Discussion:* This issue is considered by RHB to be serious in nature, and requires action to minimise the risk of recurrence.

Disposable resuscitator kits have been standard equipment in RHB health centres since 2005 (see [BP Communiqué 05-10](#)). A variety of resuscitator kits exist in health centres, including re-useable Laerdal products (legacy of stock pre-dating 2005), and a mix of disposable products (including Ferno, Laerdal, Mayo).

To establish whether the reported problem is more widespread, all RHB health centres were canvassed. Deformity of the masks / deflated cushions due to compression was confirmed to be an issue in various sites. In some responses received, there was also opinion that heat may be a significant contributor to the deformity of some masks stored in ERKs.

Disposable masks currently held in health centres, include those with two types of air cushion; those with a crimped seal, and those with inflation ports. Notably, the masks with crimped seals have generally fared more poorly; and once damaged are unable to be re-inflated. The material of the cuff appears to be thinner and one mask was noted to have been pierced. Conversely, those masks with an inflation port fared better, and even where partially deflated are able to be re-inflated.

It is also noted that the strength of the mask body appears to differ between products. This may have influence on the retention of the mask's shape and it's conformity for use. However, pressure of storage potentially jeopardises any of the products.

Similar masks stored in otherwise stable conditions (ie stored on Resuscitation trolleys in air-conditioned health centres) have retained integrity and there is no reason to change use in those situations.

Overall, the primary causative factor appears to be the pressure applied during storage, and a solution is warranted for this aspect.

Protected storage of masks poses difficulty in view of the tightly packed nature of the ERK. A rigid container to store masks (+/- resuscitator bags) is too bulky. Even if masks only were kept in a rigid container (to reduce size), it is less than ideal to separate mask from bag.

It is felt that a more comprehensive review of the ERK (incorporating both this bag/mask issue and overall review) is warranted. This will require more time to address comprehensively, but it is considered important that some interim advice be issued regarding current disposable bags and masks in service.

*Consultation:* RHB Health Centres, Territory Surgical Supplies, St John Ambulance

*References:* [Best Practice Communiqué 05-10](#), Product brochures

*Outcome:*

- All health centres to check emergency equipment for integrity of disposable bag/masks
- Any damaged items should be replaced (ordered through Remote Health Stock)
- Masks with crimped seals will no longer be stocked/supplied in Remote Health
- Overall review of the ERK Contents and layout will be undertaken through Best Practice with particular attention to the storage of bag and masks