# Upright Newborn Bag-Mask Resuscitator



# Impact

One in ten babies needs help to start breathing.<sup>1</sup> About 90% of these babies can be saved through basic interventions such as stimulation and bag-mask ventilation.<sup>2</sup>

#### Approach

Research has shown that mask leakage during ventilations of preterms with standard newborn bag-masks varies from 24-59%.<sup>3</sup> Upright newborn bag-mask addresses this through its vertical design and an improved mask. Upright has significantly fewer components than traditional bag-mask resuscitators and can be high-level disinfected by boiling, chemical disinfection with glutaraldehyde, or autoclaving.

# Results

Studies have shown that Upright has significantly less mask leak than other bag-mask resuscitators and that it was easier to ventilate with.<sup>4-5</sup> Another study showed that Upright disassembly was faster than other bag-mask resuscitators and that it is easier to reassemble correctly.<sup>6</sup>

- Wall SN, Lee AC, Niermeyer S, et al. Neonatal resuscitation in low-resource settings: what, who, and how to overcome challenges to scale up? Int J Gynecol Obstet 2009;107(Suppl. 1):47e64
- Ersdal HL, Mduma E, Svensen E, Perlman JM. Early initiation of basic resuscitation interventions including face mask ventilation may reduce birth asphyxia related mortality in low-income countries. Resuscitation 2012;83: 869e73
- Schmölzer GM: Assessment of tidal volume and gas leakage during mask ventilation of preterm infants in the delivery room. Archives of disease and childhood fetal and neonatal edition 2008, 93(3):F393-7.
- 4. Thallinger, M et al: New Neonatal Resuscitator Gives More Lung Volume on a Mannequin Model. 2014.
- 5. Thallinger, M et al. New Neonatal Resuscitator Gives Significantly Less Mask Leakage on a Maniken Model. 2015.
- 6. PATH. User Evaluation of Simplified Neonatal Resuscitators. 2013



# **Upright Features**

#### Improved mask seal

 The new "Laerdal Newborn Mask" has a stiffer and broader top than most other facemasks, and distributes the grip more evenly.
This design makes it easier to hold the mask correctly, and follows better the curves of the face, enabling a better mask seal.

#### Easier to disassemble

## and reassemble correctly for cleaning and disinfection

- Upright has fewer parts compared to other resuscitators.
- A highly visible label around the neck coupling is a reminder on how the parts are reassembled after cleaning.
- Upright comes with a pictorial poster that shows assembly, disassembly and reprocessing.

# Larger bag volume

- The volume of the bag has been increased to 320 ml to help compensate for mask leakage.
- An oxygen kit is available as an optional accessory.

# Even more convenient to store and transport

• The product can stand upright or hang from an integrated strap, to help reduce risk of soiling of the product before use.

### Can be high-level disinfected in low-resource settings

 Upright has been independently validated to achieve high-level disinfection with boiling in clean water or with glutaraldehyde.
It can also be sterilized by autoclaving.



The upright design helps the user provide an even, downward pressure onto the mask.



The silicone bag can be folded for reduced volume during transportation.



