

## CUVETTES FOR NEWBORNS

Student of group PB-32 Maliarenko D.  
assistant Yakovenko I.

National Technical University of Ukraine  
«Igor Sikorsky Kyiv Polytechnic Institute»

Sick and premature babies should be treated and brought up in conditions that compensate the underdevelopment of vital systems of a newborn organism. These conditions should also provide their sustainable recovery. The thermoregulation possibilities of neonates, especially premature, are limited [1]. To provide comfortable conditions of intensive care, special incubators (cuvettes) are used, which help to resist to the aggressive influence of external factors for not enough mature bodies.

Currently existent cuvettes of opened and closed types provide necessary level of humidity, temperature comfort, oxygen levels, many of them contain devices for phototherapy and other similar manipulations [2], but most of them are too unwieldy, their design do not maintain parental access to a baby. Even when this function is possible, these cuvettes do not protect enough a newborn from noises and other stimuluses. The children may stay in cuvettes from several days to several weeks: the duration of a stay in the neonatal incubator is determined by maturity and adaptive skills of a neonate. It is quite important for a baby to keep in touch with parents, not only for its physical, but also for its mental health. This can also reduce the length of stay in hospital.

The specially constructed incubator with silent covers, boxes and electronic mechanisms for bed tilting could be used to speed up the recovery of premature newborns, which can result in reduction of negative impacts, thus providing the opportunity to complete all necessary maintenance procedures without disturbing the child's relaxation.

### Literature

1. Chapter 2: Smith, J., Alcock, G., & Usher, K. (2013). Temperature measurement in the preterm and term neonate: A review of the literature. *Neonatal Network*, 32(1), 16-25.
2. Патент №2003110406/14, Российская Федерация, № 2147859. 2000. Кувез интенсивной терапии / Емельяненко А. И., Калимагамбетов А. М., опубл.14.08.2001, Бюл. №5.