# Effectiveness Of Stabilization Of The Newborn's Body Temperature In The Incubator For 6 Hours Against The Incidence Of Hypothermia (Newborn Study In Rsia Resti Mulya Perinatology)

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## **ABSTRAK**

Latar belakang: Kehidupan bayi yang baru lahir paling kritis yaitu saat masa transisi dari kehidupan intrauterin ke kehidupan ekstrauterin. Salah satu hal yang menjadi masalah saat dialami bayi pada masa transisi ini adalah hipotermia. Di negara berkembang termasuk Indonesia, tingginya angka morbiditas dan mortalitas Berat Bayi Lahir Rendah (BBLR) masih menjadi masalah utama. Hipotermia menyebabkan terjadinya penyempitan pembuluh darah yang mengakibatkan terjadinya metabolis anerobik, meningkatkan kebutuhan oksigen, mengakibatkan hipoksemia dan berlanjut dengan kematian. Salah satu tindakan pencegahan hipotermia pada bayi baru lahir dapat dilakukan dengan menghangatkan tubuh bayi, yaitu dengan merawat secara konvensional di dalam incubator. Tujuan penelitian ini untuk menganalisis Efektivitas Stabilisasi Suhu Tubuh Bayi Baru Lahir di dalam Inkubator Selama 6 Jam dengan Kejadian Hipotermia.

Metode :Jenis penelitian adalah quasi eksperiment dengan rancangan Randomized Pretest-Posttest Control Group Design. Populasi adalah kurang dari 100 bayi dan seluruh populasi dijadikan sampel penelitian yang berjumlah 60 bayi yang diambil secara total sampling. Pengumpulan data penelitian melalui rekam medik serta menggunakan lembar observasi untuk mengetahui Efektivitas Stabilisasi Suhu Tubuh Bayi Baru Lahir di dalam Inkubator Selama 6 Jam dengan Kejadian Hipotermia.

Hasil : Pada penelitian ini didapatkan hasil bahwa ada perubahan suhu tubuh pada Bayi Baru Lahir setelah dilakukan intervensi. Dengan hasil setelah dilakukan stabilisasi di dalam inkuabtor selama 6 jam nilai p value (<0,000) dan setelah dilakukan stabilisas di dalam inkubator ≤ 6 jam nilai p value (<0,000).

Kesimpulan : Disimpulkan bahwa ada perubahan suhu tubuh bayi setelah dilakukan stabilisasi di dalam incubator ≤ 6 jam dan stabilisasi di dalam inkubator selama 6 jam. Stabilisasi suhu tubuh selama 6 jam lebih berpengaruh untuk menaikkan suhu tubuh pada Bayi Baru Lahir.

Saran : Oleh karena itu disarankan hasil penelitian ini dapat diaplikasikan oleh bidan rumah sakit untuk mengurangi hipotermia pada Bayi Baru Lahir.

Kata Kunci: Suhu Tubuh, Bayi Baru Lahir, Inkubator, Hipotermia

# **ABSTRACT**

Background: The life of a newborn is most critical, which is during the transition from intrauterine life to extrauterine life. One of the things that become a problem when experienced by babies during this transition period is hypothermia. In developing countries including Indonesia, the high morbidity and mortality rate of Low Birth Weight (BBLR) is still a major problem. Hypothermia causes the contraction of veins that could also cause the anaerobic metabolism that increases the oxygen level needs. This condition could impact on hypoxemia and can cause death. One of the prevention of hypothermia in newborns can be done by warming the baby's body inside an incubator.

Purpose: The purpose of this study was to analyze the effectiveness of body temperature stabilization of newborns in an incubator for 6 hours to prevent the incidence of hypothermia.

Method: This type of research is a quasi-experimental design with a Randomized Pretest-Posttest Control Group Design. The population was less than 100 infants and the entire population was used as a research sample, totaling 60 infants taken by total sampling. Collecting research data through medical records and using observation sheets to determine the effectiveness of body temperature stabilization of newborns in an incubator for 6 hours with hypothermia.

Result: In this study, it was found that there was a change in body temperature in newborns after the intervention. With the results after stabilization in the incubator for 6 hours the p value (<0.000) and after stabilization in the incubator  $\le 6$  hours the p value (<0.000).

Conclusion: It was concluded that there was a change in the baby's body temperature after stabilization in the incubator for  $\leq$  6 hours and stabilization in the incubator for 6 hours. Stabilization of body temperature for 6 hours is more influential to raise body temperature in newborns.

Suggestion: Therefore, it is suggested that the results of this study can be applied by midwives in the hospital to reduce hypothermia in newborns.

Keywords: Body Temperature, Newborn, Incubator, Hypothermia

# INTRODUCTION

The life of a newborn is most critical, which is during the transition from intrauterine life to extrauterine life (Astuti, 2022). One of the things that become a problem when experienced by babies during this transition period is hypothermia (Pranoto & Windayanti, 2018). In developing countries including Indonesia, the high morbidity and mortality rate of Low Birth Weight (BBLR) is still a major problem. The leading causes of BBLR mortality in developing countries are asphyxia, respiratory distress syndrome, infections, as well as hypothermic complications (Mance Martha, 2018). Premature babies and infants born with low body weight, especially under 2000 grams, are threatened with death due to hypothermic, namely a decrease in body temperature below 36.5 °C in addition to asphyxia and infection (Reyani et al., 2019).

One of the main risk factors for morbidity and mortality in the first 28 days of neonatal life is hypothermia (Perdani & Gain, 2021). Hypothermia has also been shown to be a risk factor for neonatal sepsis, intra-ventricular hemorrhage, and necrotizing enterocolitis (Anggreyani et al, 2021). Hypothermia in newborns worldwide has a prevalence ranging from 32 to 85 percent. Compared to developed countries, the incidence of neonatal hypothermia is much higher in developing countries.

Hypothermia in neonates is a common occurrence worldwide. The global infant mortality rate is still worrying in sub-Saharan Africa. It is mentioned that 8 out of 10 places are dangerous to give birth in sub-Saharan Africa. With 29 deaths per 1000 births, 80 percent of deaths are due to asphyxia, complications at birth, hypothermia and sepsis (Indah Dewi Sari, 2020). In Ethiopian hospitals, 67% of low-birth weight, high-risk babies from outside the hospital who are admitted to a special care unit are hypothermic babies. Similar to India, the death rate due to hypothermia reaches double the mortality rate of infants who do not experience hypothermia. There is sufficient evidence to conclude that rapid postnatal hypothermia is particularly dangerous for newborns because it can increase the risk of pain and death (Fridely, 2017).

The results of the 2017 Indonesian Demographic and Health Survey (SDKI) showed akn of 15 per 1,000 live births, AKB 24 per 1,000 live births, and AKABA 32 per 1,000 live births. The Death Rate of Toddlers has reached the Sustainable Development Target (TPB / SDGs) 2030 which is 25/1,000 live births and it is hoped that AKN can also reach the target of 12/1,000 live births (Indonesian Health Profile 2018, 2018). Infant deaths in Indonesia caused by hypothermia accounted for 24.2% of cases. Hypothermia accounts for a infant mortality rate of 6.3%. One of the causes of hypothermia is the lack of good handling of newborns. Newborn hypothermia can lead to cold stress which can further cause hypoxemia or hypoglycemia and result in brain damage. (Midwifery & Bataraguru, 2020) Based on data from Resti Mulya Mother and Child Hospital East Jakarta for the period of December 2020 to May 2021 there are 1,169 newborns. Cases of hypothermia as many as 75 cases are about 6.41% (Medical Record of Resti Mulya Mother and Child Hospital, 2021).

A newborn baby cannot regulate his own body temperature, and can get cold quickly if the process of heat loss is not prevented immediately (Dial Robin, 2015). Babies who have hypothermia or lose pana, are at high risk of suffering from illness and death (Ompusunggu & Rustina, 2021). If the baby is wet or not shrouded, it is likely to experience heat loss, even if it is in a warm environment (Yulianti, 2021). Low Birth Weight (BBLR) is very susceptible to hypothermia. Hypothermia can occur at any time if the temperature around the baby is low and efforts to maintain body temperature are not applied appropriately, especially during stabilization of the first 6-12 hours after birth (Reyani et al., 2019). Hypothermia can also cause a low term complication such as acidosis, hypoglycemia, and respiration distress (Setiyaman et al, 2019)

One of the preventive measures of hypothermia in newborns can be done by warming the baby's body, namely by treating conventionally in an incubator (Kebidanan & Bataraguru, 2020). Based on this background description, researchers are interested in conducting a study with the title "Effectiveness of Stabilization of Newborn Body

Temperature in the incubator for 6 jam against Hypothermia Incidence".

# RESEARCH METHODOLOGY

The type of research used in this study is a quasi-experiment, a design that seeks to reveal a causal relationship by involving a control group of Newborns who stabilized the newborn's body temperature in the incubator for 6 hours and a newborn experimental group that stabilized body temperature in the incubator for less than 6 hours. (Fransisca & Yusuf, 2018). Quasi Experimental (Randomized Pretest-Posttest Control Group Design) design.

The population in this study was uncomplicated Newborn patients in the RSIA Resti Mulya Perinatology room. The sampling technique in the study is total sampling (Sugiyono, 2007) total sampling is a sampling technique where the number of population is equal to the number of samples. The reason for taking the total sampling technique is because the population is less than 100 and the entire population is used as a research sample of 60 babies (Annisa & Mayliza, 2019).

This data was obtained by observation in advance to find out the Effectiveness of Stabilization of Newborn Body Temperature in the incubator for 6 hours. After getting the respondents, then the

researchers took measurements of the newborn's body temperature first to the baby which will be stabilized in the incubator for 6 hours (pretest) then (infants with a sample of 30 babies) stabilization in the incubator for 6 hours, after intervention measuring the baby's temperature again for 5 minutes (posttest) and the results recorded in the temperature observation sheet. Then then the researchers took measurements of the newborn's body temperature to the baby to be stabilized in the incubator for less than 6 hours (pretest) then (infants with a sample of 30 babies) stabilization in the incubator for less than 6 hours, after the intervention re-measured the baby's temperature for 5 minutes (posttest) and the results were recorded in the temperature observation sheet.

#### **RESULT**

Based on table 1, it can be explained that out of 30 respondents obtained an average body temperature before stabilization in the incubator for 6 hours 35,413, Median 35,200, Mode 35.0, Standard Deviation 0.4208, Minimum 34.8 and Maximum 36.0.

In addition, 30 respondents obtained an average body temperature after stabilization in the incubator for 6 hours 36,557, Median 36,500, Mode 36.5, Standard Deviation 0.1431, Minimum 36.2 and Maximum 36.8.

Table 1.

Measurement of Body Temperature before and after stabilization in incubator for 6 hours at RSIA

Resti Mulya in 2022

Variable	Mean	Median	Mood	SD	Minimum	Maximum
Body temperature before stabilization in the incubator 6 hours	35,413	35,200	35,0	0,4208	34,8	36,0
Body temperature after 6-hour incubator stabilization	36,557	36,500	36,5	0,1431	36,2	36,8

Table 2.

Body Temperature Measurement before and after Stabilization in Incubator ≤ 6 hours at RSIA Resti
Mulya in 2022

Variable	Mean	Median	Mood	SD	Minimum	Maximum
Body temperature before stabilization in the incubator ≤ 6 hours	35,117	35,000	35,0	0,1967	34,8	35,7
Body temperature after stabilization in the incubator ≤ 6 hours	36,357	36,400	36,5	,1501	36,0	36,7

Based on table 2, it can be explained that out of 30 respondents obtained an average body temperature before stabilization in the incubator  $\leq 6$  hours 35,117, Median 35,000, Mode 35.0, Standard Deviation 0.1967, Minimum 34.8 and Maximum 35.7. In addition, 30 respondents obtained an average body temperature after stabilization in the incubator  $\leq 6$  hours 36,357, Median 36,400, Mode 36.5, Standard Deviation 0.1501, Minimum 36.0 and Maximum 36.7.

Tables 3 and 4 provide an overview of the results of bivariate analysis.

Table 3
Changes in Newborn Body Temperature Before Stabilization in the incubator ≤ 6 hours and After Stabilization in the incubator ≤ 6 hours in the Control Group

	Ranking Changes	N	p.
Pre Post-Control	Positive Ranking	30	0,000
Control	Ties	0	

Wilcoxon Test Description Temperature change:

- Positive ranking is an increase in the baby's body temperature before stabilization is carried out in the incubator ≤ 6 hours and after stabilization in the incubator ≤ 6 hours.
- Ties means that there is no change in the baby's body temperature before stabilization is carried out in the incubator ≤ 6 hours and after stabilization in the incubator ≤ 6 hours.

In table 3, the Wilcoxon Test was conducted to see changes in the baby's body temperature, from the results of the analysis showed that there was an

increase in the baby's body temperature before stabilization was carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours as many as 30 babies, and there was no change in the baby's body temperature before stabilization was carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours as many as 0 babies. Wilcoxon Test results show p (<0.000) < a (=0.05). This means that there is a change in the baby's body temperature before stabilization is carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours in the control group.

Table 4
Changes in Newborn Body Temperature Before Stabilization in the incubator for 6 hours and After Stabilization in the incubator for 6 hours in the Case Group

	Ranking Changes	N	p.	
Pre Post-Control	Positive Ranking	30	0,000	
Control	Ties	0		

Wilcoxon Test Description Temperature change:

- Positive ranking is an increase in the baby's body temperature before stabilization is carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours.
- Ties means that there is no change in the baby's body temperature before stabilization is carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours.

In table 4 , the Wilcoxon Test was conducted to see changes in the baby's body temperature, from the results of the analysis showed that there was an increase in the baby's body temperature before stabilization was carried out in the incubator for 6 hours as many as 30 babies, and there was no change in the baby's body temperature before stabilization was carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours as many as 0 babies. Wilcoxon Test results show p (<0.000) < a (=0.05). This means that there is a change in the baby's body temperature before

stabilization is carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours in the case group.

# **DISCUSSION**

# **Univariate Analysis**

Average body temperature before stabilization in the incubator for 6 hours

Based on table 1 above, judging from 30 babies, body temperature stabilization was carried out in the incubator for 6 hours. It is known that in RSIA Resti Mulya in 2022 before intervening with body temperature stabilization in the incubator for 6 hours, the average body temperature was 35,413 °C.

The results of a study conducted by Alebachew Bayih et al. (2019) newborn bayi that were not made in skin-to-skin contact with their mothers after childbirth were 2.9 times more likely to become hypothermia compared to those who had skin-to-skin contact (AOR = 2.87.95% CI: 1.48, 5.57). Newborns who don't wear hats are twice as likely to become hypothermic when compared to those who dress in hats (AOR = 2.10, 95% CI: 1.17, 3.76). Newborn children who were not warmly transported from one unit (delivery) to a postnatal unit or NICU) were 3.2 times more likely to become hypothermic when compared to those transported warmly (AOR = 3.18, 95% CI: 1.84, 5.48). Newborns born to mothers who had obstetric complications were 2.4 times more likely to hypothermia compared to those born to mothers without obstetric complications (AOR = 2.42, 95% CI: 1.28, 4.57). Premature babies are 3.4 times more likely to be hypothermia than term ones (AOR = 3.37. 95% CI: 1.53, 7.44).

Newborns who were not in skin-to-skin contact with their mothers after childbirth are nearly 3 times more likely to become hypothermic compared to those who have skin-to-skin contact. This may be due to the warm chain principle that there is no transfer of heat from the mother to the newborn unless the newborn is in direct contact with the mother. Skin-to-skin contact is more effective than incubator treatments to reheat a newborn baby. It may also be due to the movements of the mother's chest and abdomen that stimulate the newborn to improve breathing which increases heat generation (Alebachew Bayih et al., 2019)

Hypothermia is a decrease in body temperature below 36.5°C. The normal temperature of a newborn baby ranges from 36.5°C-37.5°C (armpit temperature). Early symptoms of hypothermia when the temperature < 36°C or both feet, and the hands are palpable cold. If the baby's

body is palpably cold, then the baby has experienced moderate hypothermia (temperature 32 °C – 36 °C) axillary temperature. It is called severe hypothermia when the body temperature < 32 °C. Hypothermia causes narrowing of blood vessels resulting in anerobic metabolic occurrence, increases oxygen requirements, results in hypoxemia and continues with death (Manggiasih Atika Vidia, 2016). Hypothermia can occur at any time if the temperature around the baby is low and efforts to maintain body temperature are not applied appropriately, especially during the stabilization period of the first 6-12 hours after birth (Harnida & Damayanti, 2021).

Newborns have not been able to regulate their body temperature, so they will experience stress with changes in the environment from the mother's womb to the outside environment with a higher temperature. The body temperature of axillary in normal babies is 36.5°C-37.5°C. One of the preventive measures of hypothermia in newborns can be done by warming the baby's body, namely by treating conventionally in an incubator (Temperature et al., 2021).

Average body temperature after stabilization in the incubator for 6 hours

Based on table 1, judging from 30 babies, body temperature stabilization was carried out in the incubator for 6 hours. It is known that in RSIA Resti Mulya in 2022 after intervention with stabilization of body temperature in the incubator for 6 hours obtained the average body temperature of the baby after the intervention was 36.557 °C.

The results of the study conducted by Alebachew Bayih et al. (2019) Newborns who are not made in skin-to-skin contact with their mothers after delivery are 2.9 times more likely to become hypothermia compared to those who have skin-toskin contact (AOR = 2,87.95% CI: 1.48, 5.57). Newborns who don't wear hats are twice as likely to become hypothermic when compared to those who dress in hats (AOR = 2.10, 95% CI: 1.17, 3.76). Newborn children who were not warmly transported from one unit (delivery) to a postnatal unit or NICU) were 3.2 times more likely to become hypothermic when compared to those whom transported warmly (AOR = 3.18, 95% CI: 1.84, 5.48). Newborns born to mothers who had obstetric complications were 2.4 times more likely to hypothermia compared to those born to mothers without obstetric complications (AOR = 2.42, 95% CI: 1.28, 4.57). Premature babies are 3.4 times more likely to hypothermia than term ones (AOR = 3.37. 95% CI: 1.53, 7.44).

Based on the results of the above research, researchers assume that by stabilizing the body temperature of newborns in the incubator for 6 hours can increase the body temperature of newborns. Because from the results of research conducted for 1 month, the stabilization of newborns in the incubator is able to increase the baby's body temperature gradually. With the result of the increase from 35.413°C to 36.557°C.

Average body temperature before stabilization in the incubator ≤ 6 hours

Based on table 2, judging from 30 babies, body temperature stabilization was carried out in the incubator  $\leq$  6 hours. It is known that in RSIA Resti Mulya in 2022 after intervention with body temperature stabilization in the incubator for 6 hours, the average baby's body temperature before intervention was 35,117 °C.

The results of the study conducted by Alebachew Bayih et al. (2019) Newborns who are not made in skin-to-skin contact with their mothers after delivery are 2.9 times more likely to become hypothermia compared to those who have skin-toskin contact (AOR = 2,87.95% CI: 1.48, 5.57). Newborns who don't wear hats are twice as likely to become hypothermic when compared to those who dress in hats (AOR = 2.10, 95% CI: 1.17, 3.76). Newborn children who were not warmly transported from one unit (delivery) to a postnatal unit or NICU) were 3.2 times more likely to become hypothermic when compared to those transported warmly (AOR = 3.18, 95% CI: 1.84, 5.48). Newborns born to mothers who had obstetric complications were 2.4 times more likely to hypothermia compared to those born to mothers without obstetric complications (AOR = 2.42, 95% CI: 1.28, 4.57). Premature babies are 3.4 times more likely to hypothermia than term ones (AOR = 3.37. 95% CI: 1.53, 7.44).

Based on the results of the above research, researchers assume that to increase the body temperature of newborns can be done by stabilizing the body temperature of newborns in incubators. Where hypotherapy that occurs after giving birth to a baby is the most serious thing as a cause of mortality and morbility, so it is very important to maintain the survival of the newborn by preventing body heat loss.

Average body temperature after stabilization in the incubator ≤ 6 hours

Based on table 3, judging from 30 babies, body temperature stabilization was carried out in the incubator ≤ 6 hours. It is known that in RSIA Resti Mulya in 2022 after intervention with body

temperature stabilization in the incubator for 6 hours, the average baby's body temperature after intervention was 36,357 °C.

The results of the study conducted by Alebachew Bayih et al. (2019) Newborns who are not made in skin-to-skin contact with their mothers after delivery are 2.9 times more likely to become hypothermia compared to those who have skin-toskin contact (AOR = 2,87.95% CI: 1.48, 5.57). Newborns who don't wear hats are twice as likely to become hypothermic when compared to those who dress in hats (AOR = 2.10, 95% CI: 1.17, 3.76). Newborn children who were not warmly transported from one unit (delivery) to a postnatal unit or NICU) were 3.2 times more likely to become hypothermic when compared to those who warmly transported (AOR = 3.18, 95% CI: 1.84, 5.48). Newborns born to mothers who had obstetric complications were 2.4 times more likely to hypothermia compared to born to mothers those without obstetric complications (AOR = 2.42, 95% CI: 1.28, 4.57). Premature babies are 3.4 times more likely to hypothermia than term ones (AOR = 3.37. 95% CI: 1.53, 7.44).

Based on the results of the above research, researchers assume that by stabilizing the newborn's body temperature in the incubator  $\leq 6$  hours can increase the newborn's body temperature. Because from the results of research conducted for 1 month, the stabilization of newborns in the incubator is able to increase the baby's body temperature gradually. With the result of the increase from 35,117 °C to 36,357 °C. But the result will be better if stabilization is done in the incubator for 6 hours. Because the longer the stabilization in the incubator, the greater the increase in the baby's body temperature.

## **Bivariate Analysis**

Changes in Newborn Body Temperature Before Stabilization in the incubator  $\leq 6$  hours and After Stabilization in the incubator  $\leq 6$  hours in the Control Group

Based on the results of bivariate analysis using the Wilcoxon Test to see changes in the baby's body temperature, from the results of the analysis showed that there was an increase in the baby's body temperature before stabilization was carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours as many as 30 babies, and there was no change in the baby's body temperature before stabilization was carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours as many as 0 babies. Wilcoxon Test results show p (<0.000) < a (=0.05). This means that there is a change in the baby's body temperature before

stabilization is carried out in the incubator  $\leq 6$  hours and after stabilization in the incubator  $\leq 6$  hours in the control group.

The results of this study are in line with research Adriana Ully et al (2020) showed that incubator treatment can increase the body temperature of babies with low birth weight to normal with an average body temperature increase of  $0.6\,^{\circ}$  C with a value of p = 0.000. Based on characteristics, there is an increase in body temperature of  $0.5\,^{\circ}$  C- $0.9\,^{\circ}$  C at low birth weight, very low birth weight, and babies with very low birth weight after 2 hours of incubator treatment. This can occur due to the opening of the incubator and the length of the maintenance procedures performed. In this study the researchers performed the procedure according to protocol and did not open the incubator.

Changes in Newborn Body Temperature Before Stabilization in the incubator for 6 hours and After Stabilization in the incubator for 6 hours in the Case Group

Based on the results of bivariate analysis using the Wilcoxon Test to see changes in the baby's body temperature, from the results of the analysis showed that there was an increase in the baby's body temperature before stabilization was carried out in the incubator for 6 hours as many as 30 infants, and there was no change in the baby's body temperature before stabilization was carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours as many as 30 babies. 0 babies. Wilcoxon Test results show p (<0.000) < a (=0.05). This means that there is a change in the baby's body temperature before stabilization is carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours in the case group, in other words it can be said that there is an influence of stabilization of the newborn's body temperature in the incubator with the incidence of hypothermia.

The results of this study are in line with research Adriana Ully et al (2020) showed that incubator treatment can increase the body temperature of babies with low birth weight to normal with an average body temperature increase of  $0.6\,^{\circ}$  C with a value of p = 0.000. Based on characteristics, there is an increase in body temperature of  $0.5\,^{\circ}$  C- $0.9\,^{\circ}$  C at low birth weight, very low birth weight, and babies with very low birth weight after 2 hours of incubator treatment. This can occur due to the opening of the incubator and the length of the maintenance procedures performed. In this study the researchers performed the procedure according to protocol and did not open the incubator.

# CONCLUSION

Based on the results of research that has been done on infants at RSIA Resti Mulya, the conclusions were there is an increase in the average body temperature of the baby after intervention. The result also shows that the process of stabilizing the newborn's body temperature in the incubator ≤ 6 hours does not show rapid temperature changes. There is an increase in the body temperature of the stabilization of the newborn in the incubator for 6 hours and the stabilization of the newborn in the incubator  $\leq$  6 hours, the results of the analysis showed that there was an increase in the baby's body temperature before stabilization was carried out in the incubator for 6 hours as many as 30 babies, and there was no change in the baby's body temperature before stabilization was carried out in the incubator for 6 hours and after stabilization in the incubator for 6 hours. In this study, the stabilization of the newborn's body temperature in the incubator for 6 hours in the case group, in other words it can be said that there is an effect of stabilizing the newborn's body temperature in the incubator for 6 hours on the incidence of hypothermia.

## **SUGGESTION**

The suggestion obtained by this research is that the midwives in the hospital are expected to provide stabilization in the incubator for the newborn in order to against the increased body temperature. This could decrease the morbidity rate of hypothermia in newborn especially in Indonesia.

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