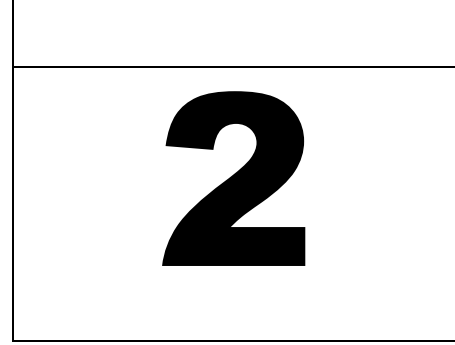




M. A. AKŞİT Koleksiyonundan



**Neonatology Intensive Care, a new establishing one is a kind of migration to a new residence, so, start to go \***

**Yenidoğan Yoğun Bakım yapılanması, bir göç gibi yeni oluşumu kur ve başla \***

*M Arif AKŞİT\*\**

*\* Advice of a Physician, Neonatologist, wanted for establishing a Neonatology Unit*

*\*\*Prof. MD. Child Health and Diseases, Neonatologist and Pediatric Genetics.*

*For establishing a new system, unit, financial aspect is the last one to be in consideration. First, you have to person, deeply believe the benefit and the action of it, not blurred their mind about the common consideration. New one, new unit, as if looking the old, thus by Medical Science and by new technology, given Right to Life to preterm infants. As old consideration, the one who survive and healthy is our child. The new concept, everyone has to Right to Live, so precious care and serve to them, even at life threatening position. Euthanasia is forbidden, considering as intended and attempted to death. This Article as establishing a new Unit, by changing the medication system, ethical principles and education of the unit member, as completely new statute and structure confirmed.*

**L**ove is the only factor for making stimulation, and leading us for further goodness and humanity resources. So, if you want to established a new unit, you must love the concept, work in it by lovely and also academic positioning, meaning a subject for further research and progress on it, for life long. Even on difficulties and oppositions encountered, be thankful, so at common, it is going to take attention so investigate and search, so, being with you. If you don't start, you will not even get a point.

#### **Outline**

**Neonatology Intensive Care, a new establishing one is a kind of migration to a new residence, so, start to go**

**AIM:** For establishing a new Intensive Care Unit, as if a migration, from an excellent Unit, Hacettepe Preterm Unit, to a new, thus new newborn concept. So, starting to take care and serve past history at this Article.

**Grounding Aspects:** In books; Introduction to Neonatology (1987), as a professor thesis and Introduction to Newborn (1993), as the pre-license education book for paramedics, are source of the Article.

**Introduction:** the first established on Neonatology care and serve newborn infants' concept is hereby as old past for recognition.

**General Considerations:** For construction you must work hard, not only about the Neonatology, the opposition of your close friends, administrations, because of there is maternity facility in the city. Neonatology must on special medical applications, so it essential, required for performing special aspects.

**Proceeding:** After resuscitation performed at delivery room, and healthy discharge of preterm infants, even making exchange transfusions and phototherapy at newborn infants, as an obligatory referred unit.

**Notions and Conclusion:** If you want to care and serve the critical life limit position of preterm infant, you must have been a special unit for care them.

**Key Words:** Establishing a new Neonatal Intensive Care Unit

## Özet

### Yenidoğan Yoğun Bakım yapılanması, bir göç gibi yeni oluşumu kur ve başla

**Amaç:** Neonatoloji Bilim Dalı kurulabilmesi için, önce bu yönde güçlü, istek ve beceri almak gerekir. Hacettepe Üniversitesinde Yenidoğan servislerinde çalışmış olmak, yeni bir yapılanma olsa da bunu ilk defa akademik ortamda kurmak bir nevi göç kabul edilmelidir. Bu bir tarihsel boyut olarak sunulmaktadır.

**Dayanaklar/Kaynaklar:** Kaynaklar: 1987 yılında basılan ve Profesörlük taktim tezi olarak sunulan Neonatolojiye Giriş kitabı ile, Paramediklere Önlisans eğitimi olarak ders kitabı olan 1993 basımlı Yenidoğana Giriş olmaktadır.

**Giriş:** Yenidoğan bebeklere tıbbi yaklaşım ve bakımın, geçmişte planlanma boyutu bir anı ve örnek olarak sunulmaktadır.

**Genel Yaklaşım:** Bir yeni yapılanmada, güçlü çalışma gerekir, burada temel olan Neonatoloji konusu olmaktadır, buna karşın yakın arkadaşlarınızdan, idareden itirazlar, şehirde Doğumevi olması nedeniyle, neden gerektiği konusunda yeterli gücünüz, dayanak ve gerekçeniz olmalıdır.

**Başlıca boyutlar:** Doğarken sorunlu gebeliklerde canlandırma yapma zorunluluğu olması, prematürelere sağlıklı olarak taburcu edilmesi, daha önemlisi, sarılıklı bebeklere ışık tedavisi ile kan değişimi yapılması ile sevk edilen merkez olmuştur.

**Yaklaşım:** Yaşam sınırında olan bebeklere bakım ve takip yapmak istiyorsanız, özel onlara bakabilecek Yoğun Bakımınız olmalıdır.

**Anahtar Kelimeler:** Yeni bir Neonatoloji Ünitesi oluşturmak

## Introduction

If you want to perform a new structure, system, even not any example for copy, thus, taken as an idea, constructed, the true intentions, adapted to you condition.

So, first, motivation, later planning, then arrange the situation, so education and application. The result indicates the truth, so, making arrangement. Not buying and putting the technological devices, it may be useless and make a load, not to carry but, be a problem.

All must be in love by humanity, with education application. You must be on and in Neonatology not for a limited time, for continuously.

### Why considered as migration?

First being on motivation, as noted at the previous Article.

Is it really confirming a Neonatology Intensive care, as taken example of Hacettepe Preterm Ward, or not? Forming a new Unit, as a migration of a community, not really wanted. Obligatory accepted, after noticed and seen the results.

## Second: Planning on Medical Facility

The best to give the forms, that are planned and making as action at Neonatology Unit.

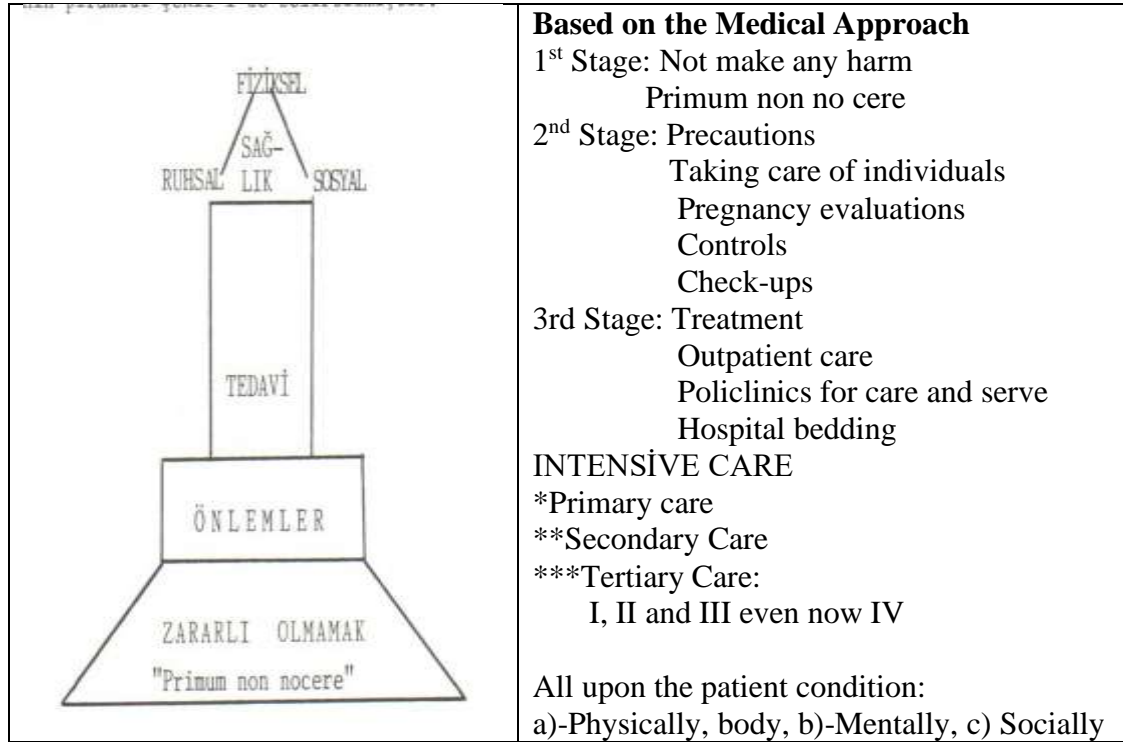
Not looking at the information on Neonatology, just for admission, 1) Medical status, 2) Technology that confirm, 3) The knowledge-based case information, even for staff.

### References from:

- M. Arif Akşit: Neonatolojiye Giriş (Introduction to Neonatology), Anadolu Üniversitesi Tıp Fakültesi, Anadolu Üniversitesi Yayınları: Eskişehir, 1987 Turkey.
- M. Arif Akşit: Yenidoğana Giriş (Introduction to Newborn): Anadolu Üniversitesi Yayınları; No: 716, Açık Öğretim Fakültesi Yayınları; No:352, Sağlık Personeli Önlisans Eğitimi, Eskişehir, 1993.

## Medical Applications as Conditional State

### The stages of medical concept upon the patient status



**Figure 2/1:** The way of medical treatment concept

In Neonatology we must concern all.

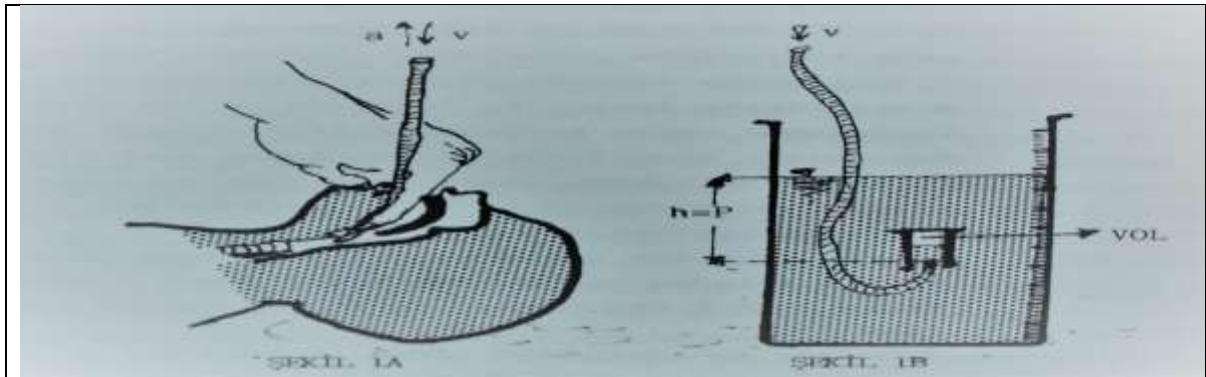
# Education

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## Hand/finger intubation and mouth ventilation must learn



**Figure 2/3:** If not equipment is found at the labor of preterm infants, hand intubation and mouth ventilation must learn.

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There are two books; one for the physician, the other is for paramedics and nurses. The forms and charts to be in consideration, they learn how to adapted and used these forms.

It is not a filling of chart, know what is the meaning and have practice for that. Certification programs must follow and be sure passed, as complete performance give the right to do. Even written and applied exam being in perfect positioning.

## The construction of Neonatal Ward

In hospitals, one place for maternity, the other line for medical applications, storage, surgery or other facilities.

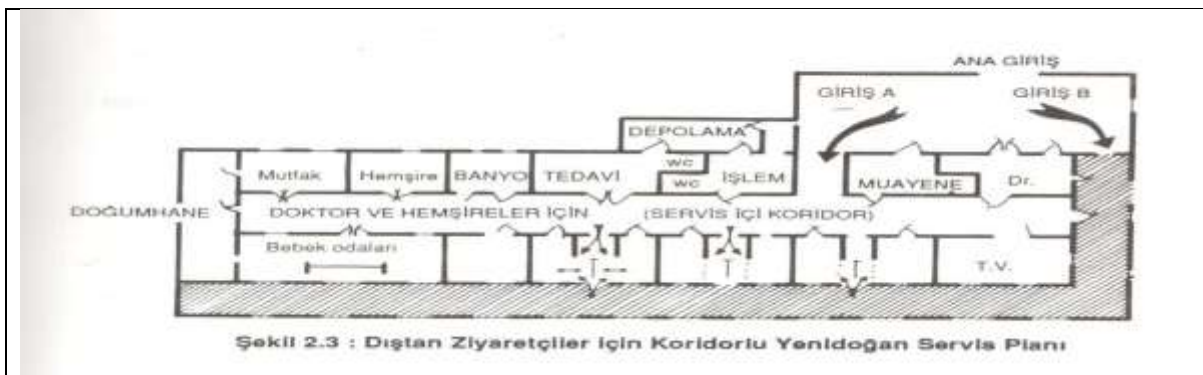
The arrangement of maternity ward, as for first level of care



**Figure 2/5:** One side for maternity, rooming in method, other for medical service facilities

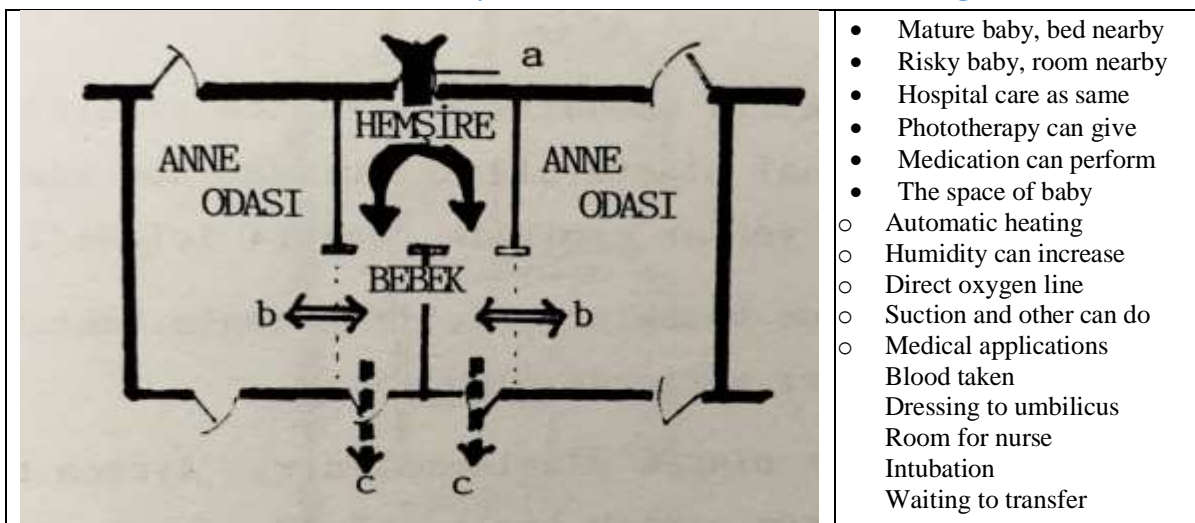
At rooming on arrangement, the baby and mother in same room, thus, medical entrance is directly to the baby place. Visiting form outside, by special way to go.

If treatment required, only if suitable mother, thus not any other visitors, for contamination, infection precautions.



**Figure 2/6:** For hospital care, therefore visiting form outside, seen from window

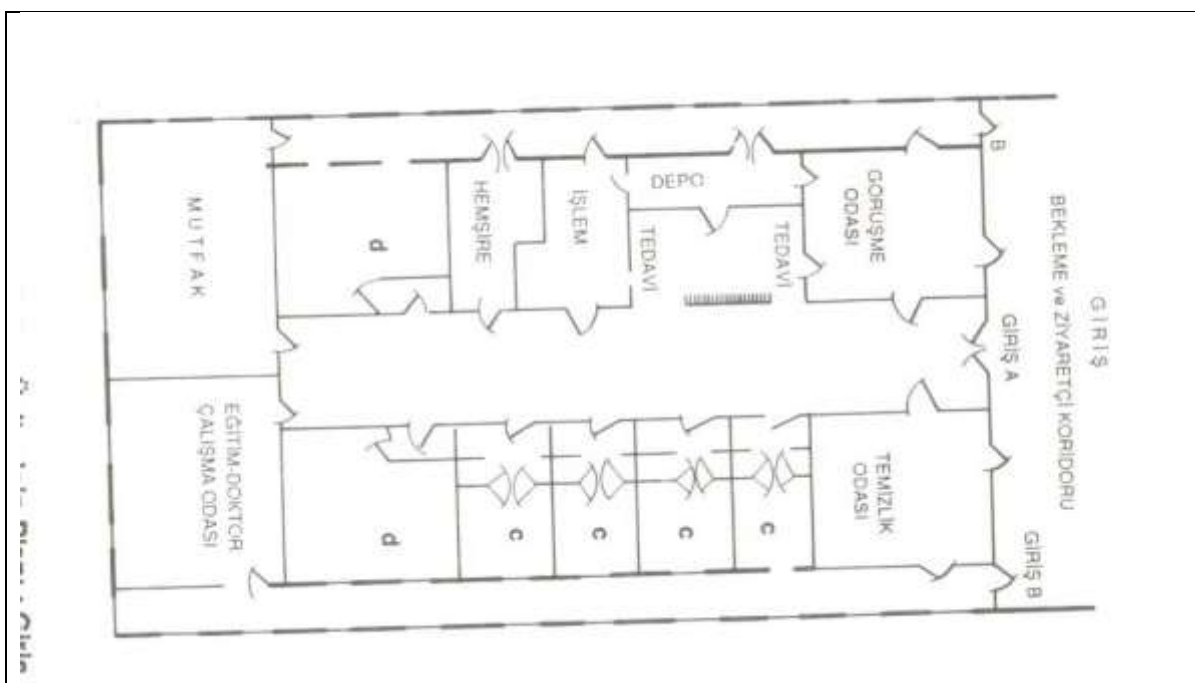
Even direct contact with the family, medical staff entrance is differing



**Figure 2/7:** Direct medical contact and following of newborn infant can be possible.

For intensive care double door for protection infection.

Neonatal Intensive Care model



**Figure 2/8:** Intensive Care Unit ward: Before entering cleaning place, also for medical equipment's, mother can stay at other rooms, especially for mother's milk, even breastfeeding.

When the structure not as satisfactory or any other problems, curtain from top to bottom and making a separation between the infants.

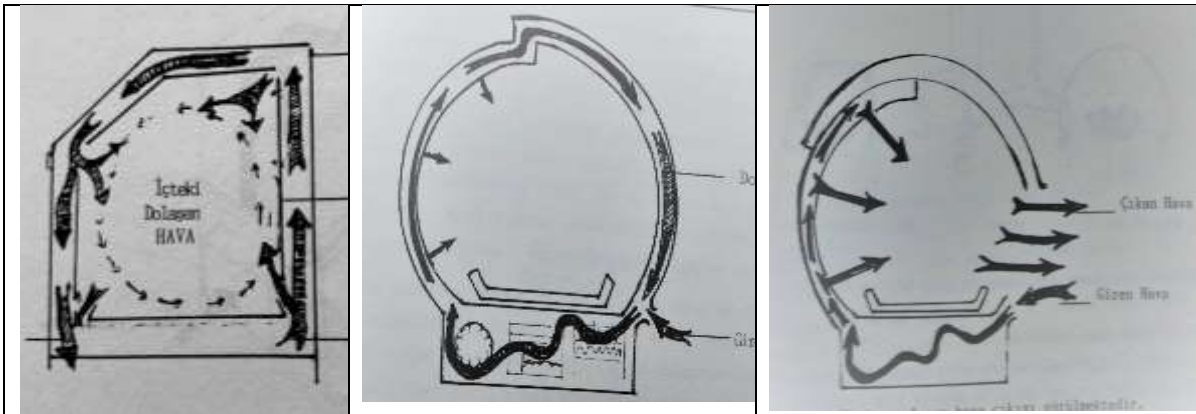
When the incubators are away about 2 meters, it is also a separation, thus the infant is in a closed room, in incubator.

# Medical Equipment

The medical staff, especially the person, who is using them, must know the philosophy and the function of the equipment. Not as heating the body, stayed at neutral zone, not any air flowing around them.

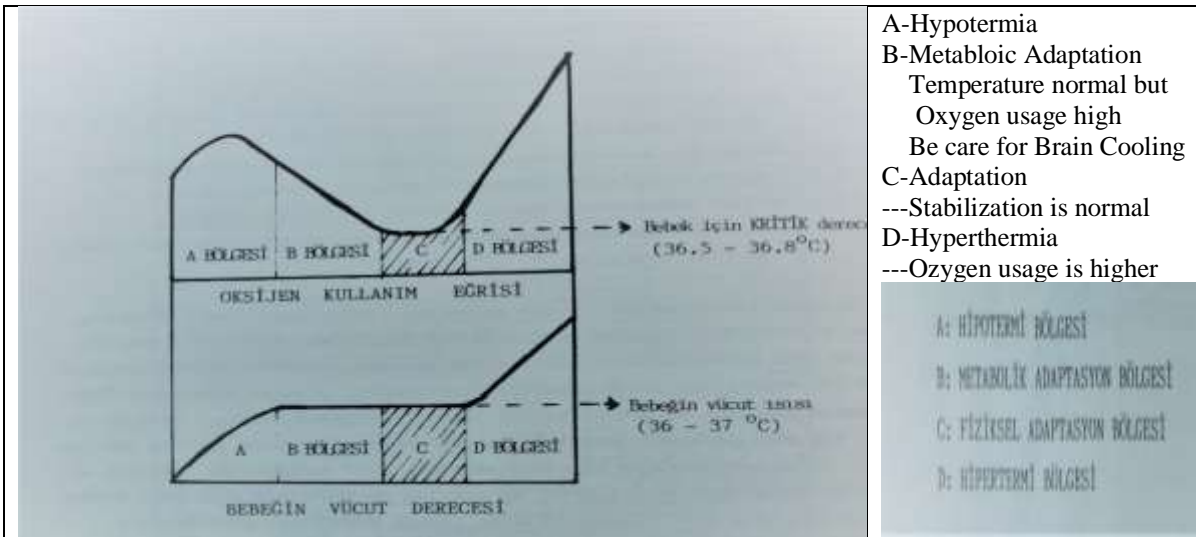
If the door of incubator opens, direct flowing occurred, may cause harm to preterm.

The construction philosophy of incubator: Neutral Body condition must be confirmed



**Figure 2/9:** Baby must at neutral position, not contact of any wind, air flows. Even at stable position, when the door is opened, everything is going to change.

Being in calculation of the body temperature and oxygen using

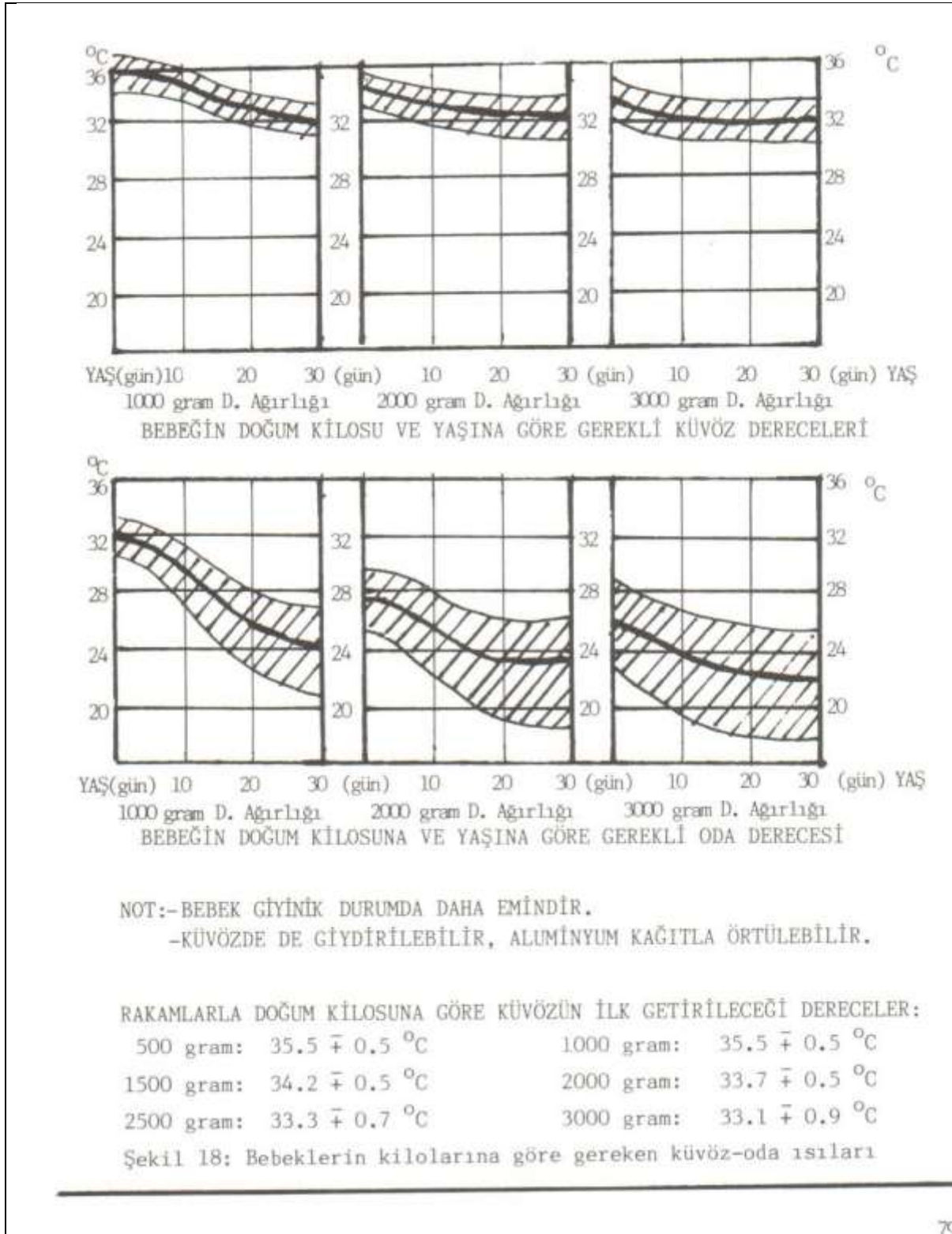


**Figure 2/10:** Oxygen usage, and the degrees of Centigrade of the body, in correlation at newborn infant

If you want to neutral temperature for stabilization, other vital systems be in normal. The room/incubator degrees must be arranged about the birth weight.

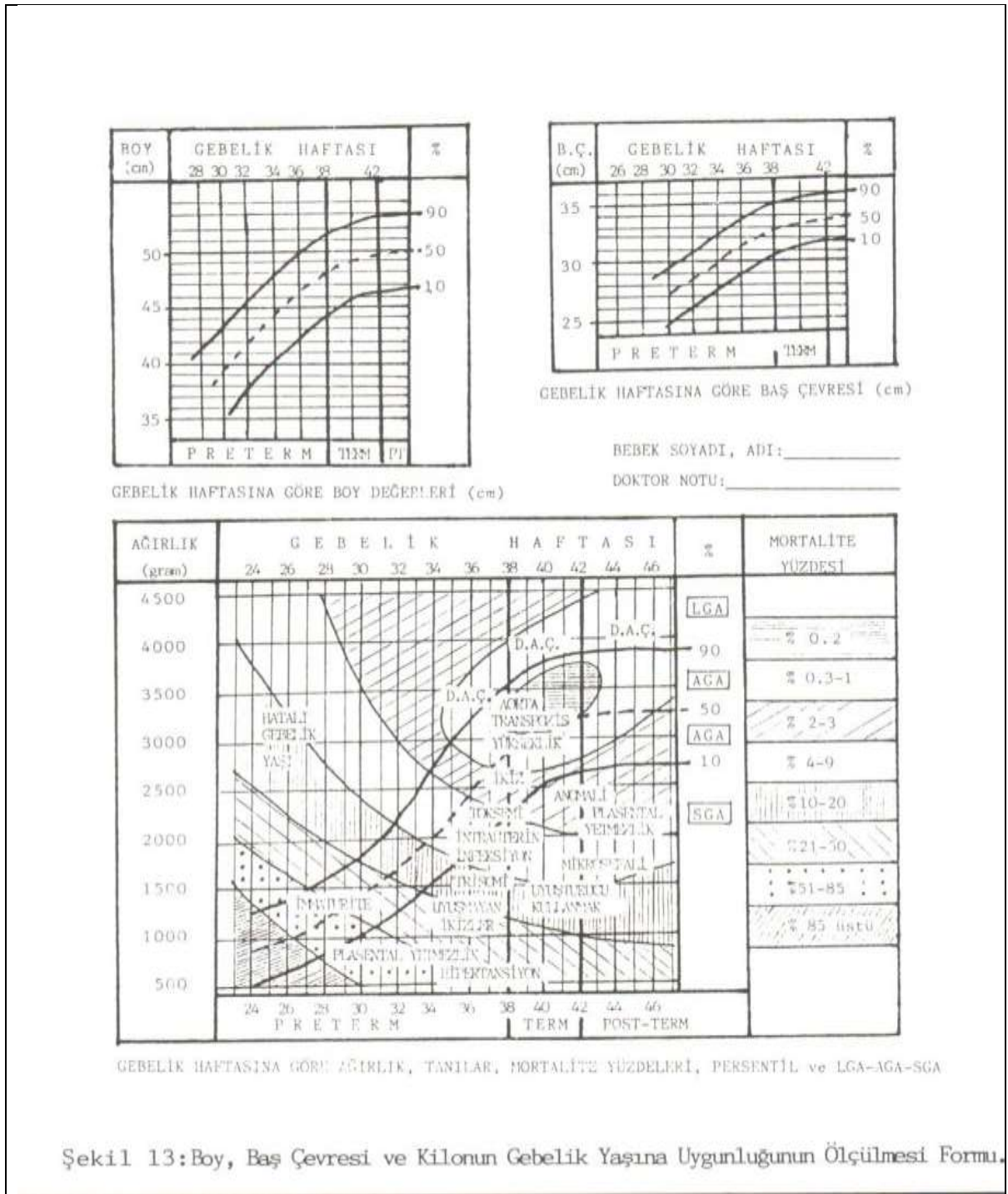


The estimation of the environmental temperature form birth for 30 days



**Figure 2/11:** Birth weights and following days, the estimation of the incubators, room temperature

## Weight, length, and Head Circumference at Gestational Age

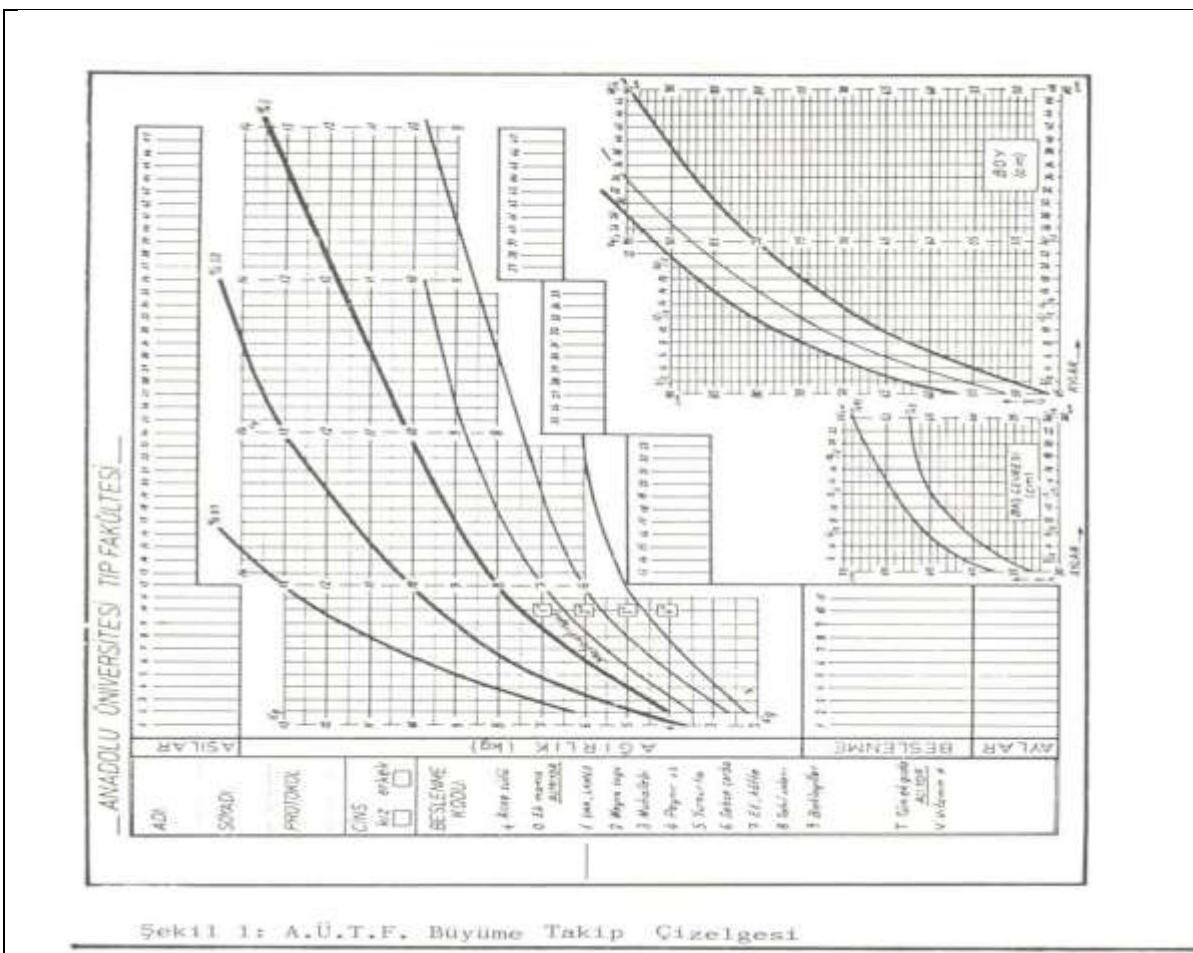


**Figure 2/12:** Weight, length, and Head Circumference, for the Gestational week, and also the mortality ratio estimation

For evaluation not only gestational age as: 1) Appropriate to Gestational Age (AGA), 2) Large for Gestational Age (LGA) or 3) Small for Gestational Age (SGA).

These leads to mortality rage confirmation. Over 2% means intensive care must be evaluated.

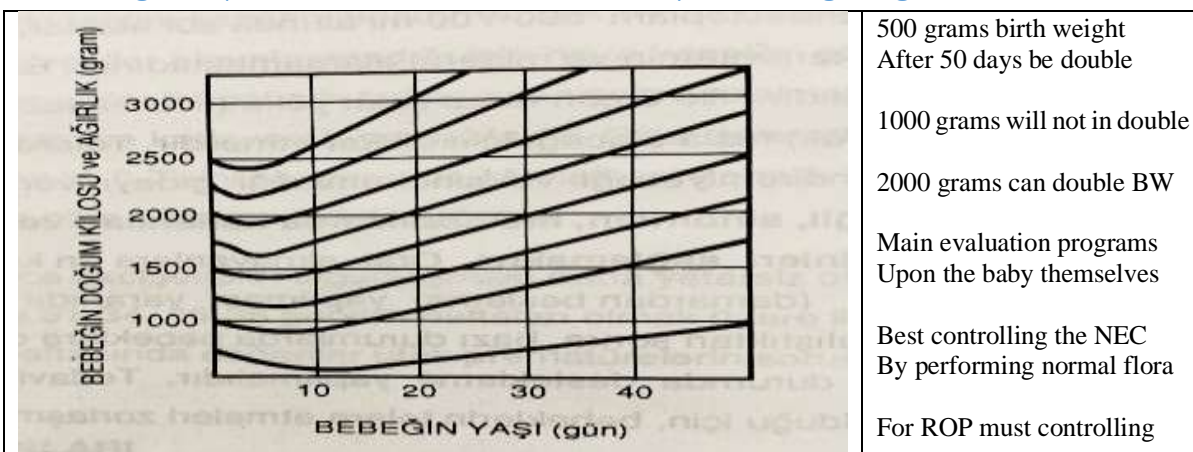
The Growth Chart: Weight, Length, Head Circumference



**Figure 2/13:** As growth for percentile levels for following.

Weight below 2500 grams, as below 37 weeks of gestation, so must have special chart.

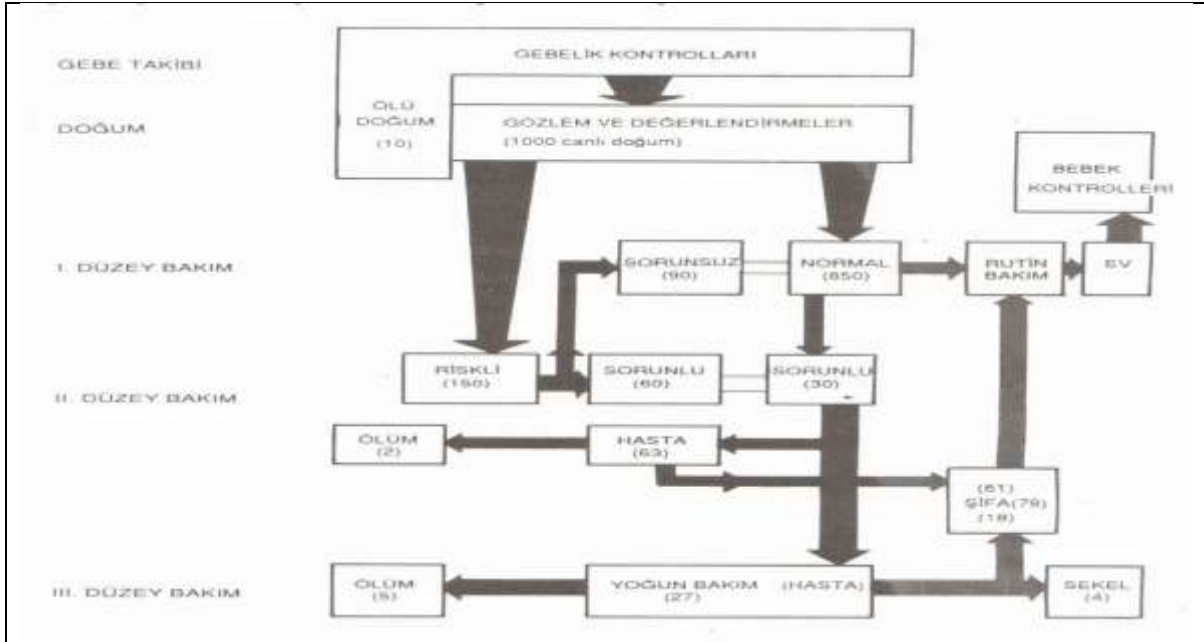
Birth Weight of preterm infant and the 40-50 days following weightiness



**Figure 2/14:** Dancis preterm growth follow up

# Triage

Even 1000 live births, and the Neonatology consideration ratios



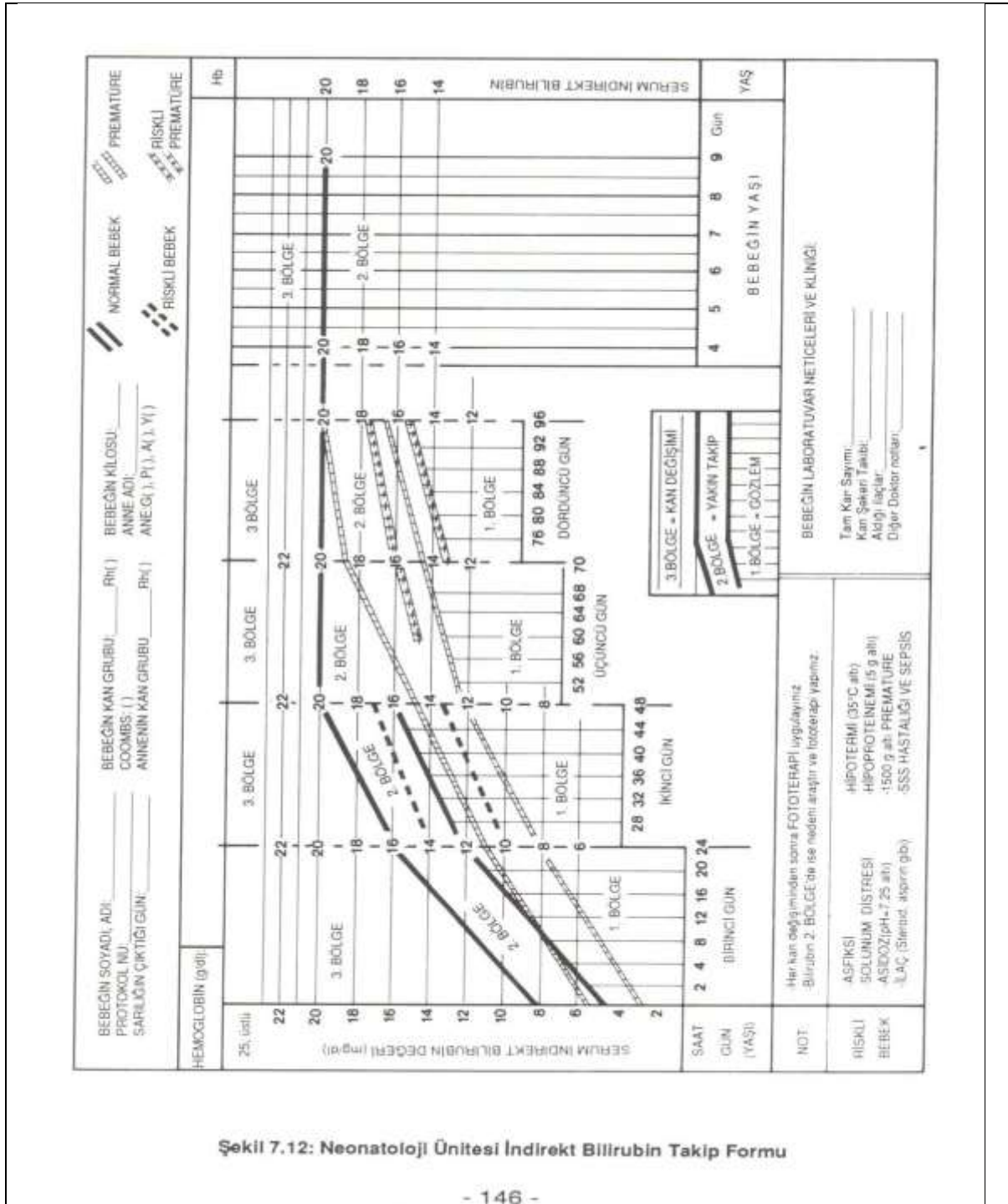
**Figure 2/15:** For 1000 birth, the estimated ratios: 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level of medical care

As following the birth weight to be as birth weight, 1-2 days to 15 days long. So taken care of the preterm infants as 30-50 days of duration, noted as more than 150 days be required.

Considered all Newborns (1000)

1. 10 Intrauterin deaths  
Investigate for protection the next
2. At risk 150 cases  
II, III. Level of care
  1. Problem: 60 cases  
Hospital care: treatment
  2. Intensive care: 30 cases  
Intensive, preterm care  
Total 90 infants
    - Hospital 63- (2 death)  
Mostly cause congenital problems
    - Intensive 27-(5/4 death/sequel)  
Long term medication be done
    - 60 returns to normal  
Sequel about 4 and 5 case
3. Routine care (pregnancy care)  
850 infants for normal care
4. Controls  
850+60 infants for controls

Bilirubin levels and the following chart table



**Figure 2/16:** Due to the bilirubin levels and birth weight for medical procedure

Not fixed on 20<sup>th</sup> Phobia, thus, the main importance about the free indirect bilirubin. As the normal infant, the albumin is above 3 g/dL then, about 50mg/dl indirect bilirubin be toxic. Thus, not to be danger taken as 20-25mg/dL with precaution.

# Following up, Controls

The list for controlling and also for Neuro-psychiatry development by Denver.

Even direct contact with the family, medical staff entrance is differing

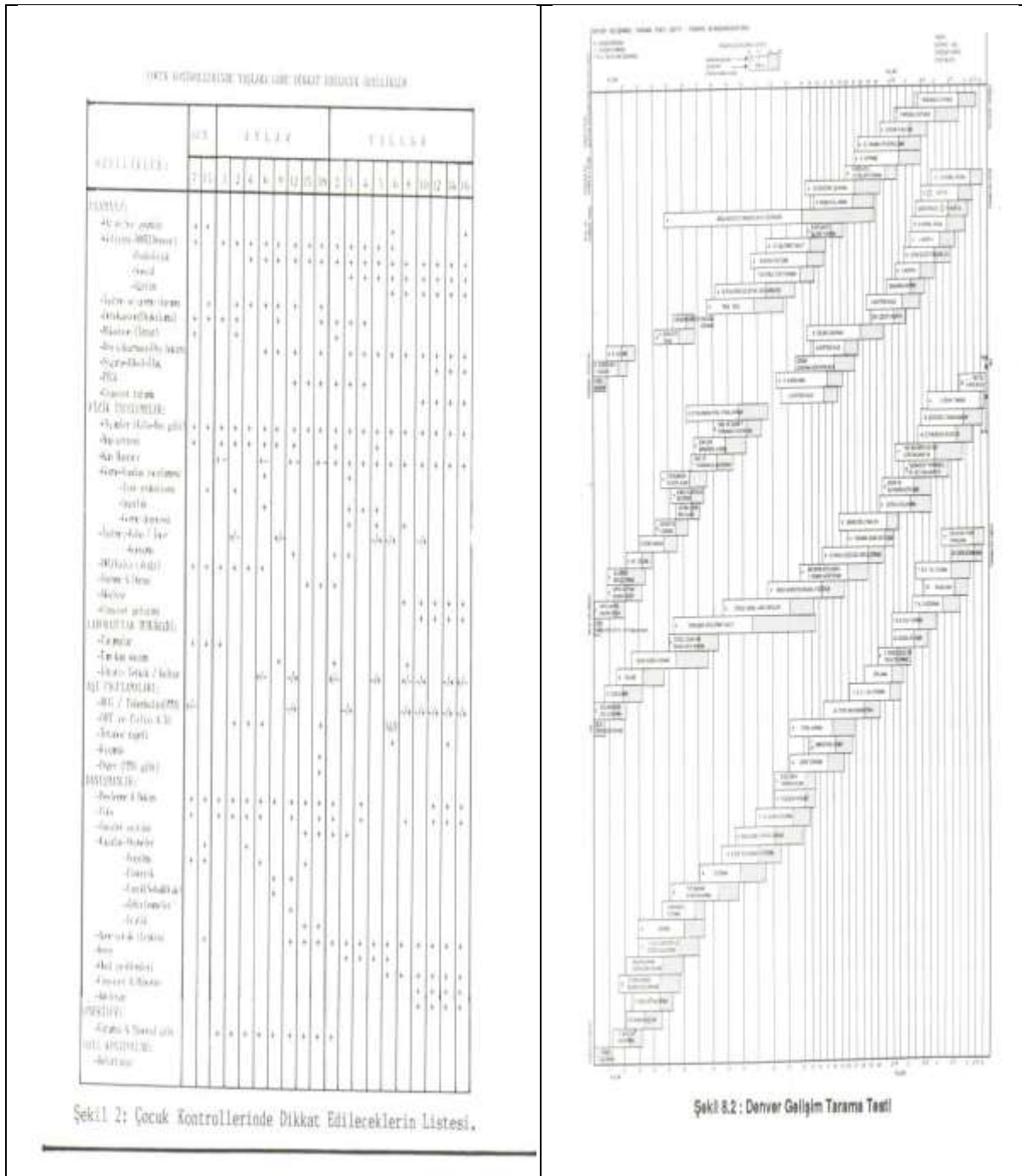


Figure 2/17: Denver and controlling items for check up

## Arrange the Situation

If you are a healthy center, you must find a place at the community. If educated for Intensive Care, so, being on this perspective, so it, perform the medical care.

Love on humanity at medical science by performing medical staff, so, the only way, being in loved the baby. If you have resuscitated and going to live, so, you will have a medical place.

Love at the proficiency is the utmost important, up to now, from establishing time, 5 people, mostly nurse, did their job, but not so familiar with the preterm infants, so, wanted to change their ward, in Pediatrics.

## Application

The result is noted at the Article of the Neonatology Intensive Care Unit will be at another one.

## As a Result

Aiming to establishing an Intensive Care Unit, you must need and required several aspects. As technology and other materials have to be present. Thus, if you have no body to use it all of them are useless.

The point as, counter objections are more active. Why we have to act on preterm babies, more retardation and handicaps are occurred, so, are we trying to create such people?

First at arithmetic, later it is going to geometric increase. Thus, it means decrease of mortality even morbidity.

Performing Birth: in 1983 from 197 to 443 in 1988.

Admitted newborns: in 1983 from 311 to 536 in 1988.

Mortality at Preterm Unit: 21,5%, Newborn Unit 13.2% in 1983.

Morbidity at Preterm Unit: 33,0%, Newborn Unit 20.4% in 1988.

It is because the Unit is referred, and below 1000grams are in collection. About 17,4% admitted for immaturity, as 71,5% died for respiratory problems, thus, 19,5 for infectious diseases.

## References

- M. Arif Akşit: Neonatolojiye Giriş (Introduction to Neonatology), Anadolu Üniversitesi Tıp Fakültesi, Anadolu Üniversitesi Yayınları: Eskişehir, 1987 Turkey.
- M. Arif Akşit: Yenidoğana Giriş (Introduction to Newborn): Anadolu Üniversitesi Yayınları; No: 716, Açık Öğretim Fakültesi Yayınları; No:352, Sağlık Personeli Önlisans Eğitimi, Eskişehir, 1993.