Dissertation on

"APPLICATION OF CLINICAL SCORE IN SICK NEONATES RECEIVED AT OUR EMERGENCY UNIT AND ITS IMPACT ON THE OUTCOME OF THE NEONATE AND TO COMPARE THE EFFECT OF TRAINED PERSONNEL ACCOMPANYING THE CHILD"

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CERTIFICATE

This is to certify that the dissertation entitled ***"APPLICATION OF CLINICAL SCORE IN SICK NEONATES RECEIVED AT OUR EMERGENCY UNIT AND ITS IMPACT ON THE OUTCOME OF THE NEONATE AND TO COMPARE THE EFFECT OF TRAINED PERSONNEL ACCOMPANYING THE CHILD."*** *i*s a bonafide work done by **DR.VENKATESWARAN .V.S** at Madras Medical College, Chennai in partial fulfillment of the university rules and regulations for award of M.D., Degree in Paediatrics (BRANCH VII) during the academic year 2012-2015.

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DECLARATION

I solemnly declare that this dissertation entitled ***"APPLICATION OF CLINICAL SCORE IN SICK NEONATES RECEIVED AT OUR EMERGENCY UNIT AND ITS IMPACT ON THE OUTCOME OF THE NEONATE AND TO COMPARE THE EFFECT OF TRAINED PERSONNEL ACCOMPANYING THE CHILD."*** was done by me at Madras Medical College and Institute of Child Health and Hospital for Children, during2012-2015 under the guidance and supervision of **DR.J.KUMUTHA MD., DCH.,** This dissertation is submitted to **The Tamilnadu Dr.M.G.R Medical University** towards the partial fulfillment of requirements for the award of **M.D Degree in Paediatrics (Branch – VII)**

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A DISSERTATION SUBMITTED TO
INSTITUTE OF CHILD HEALTH AND HOSPITAL FOR CHILDREN
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BY
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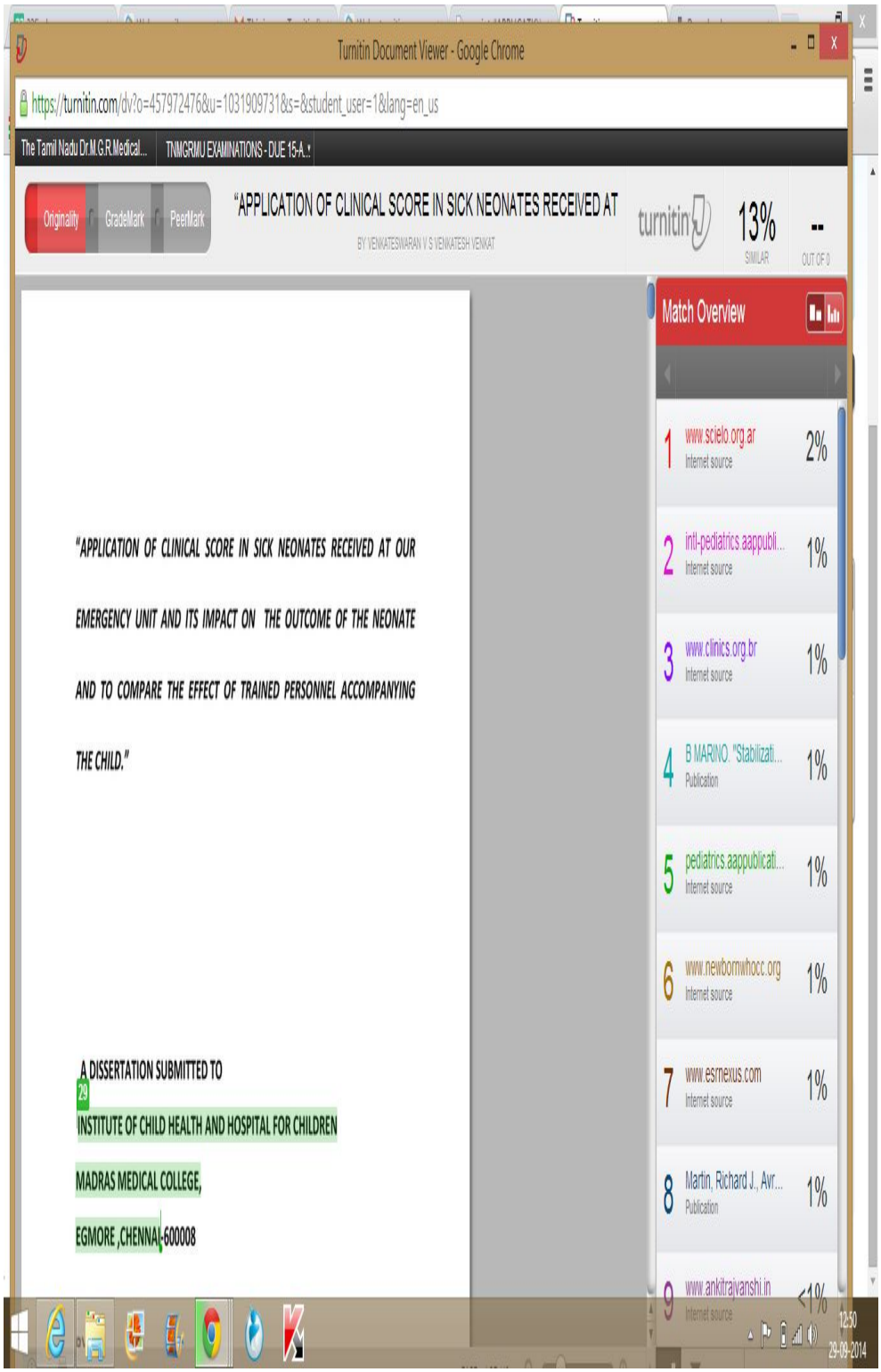
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CONTENTS

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OBJECTIVE:

India contributes to one fourth of neonatal mortality .This study objective is to device and apply a score in sick neonates received in our emergency ward and its impact on the outcome of the neonate and to compare the effect of trained personnel accompanying the child.

METHODS:

A prospective descriptive study was conducted in our institute during the period of 1.7.2014-15.9.2014 in the department of newborn emergency room

and neonatal wards of institute of child health .The neonates fulfilling the inclusion criteria were included in the study .Demographic details pertaining to the mother and baby ,transport details, personnel accompanying, referral indications, pre hospital therapy were collected on admission.On arrival in the emergency room vital parameters were recorded,stabilised and admitted in the ward. These neonates were followed up till discharge or death.

RESULTS:

Sepsis(29.4%),asphyxia(16%),prematurity(11%) were the common indications for referral.39.4% of neonates were transported by dedicated 108 Neonatal ambulances followed by own modes of transport.60% of neonates were accompanied by the trained personnel.14.6% succumb to the illness among the referred neonates.Among the parameters recorded on arrival Heart rate,Perfusion,Capillary blood glucose,temperature and Apgar at 5 minutes were considered significant.A score was devised using these parameters,cut off of 3 was obtained by ROC curve with high mortality when the score is >3 with sensitivity88.2% and specificity 82.8%.Neonates who were accompanied by trained personnel had better outcome than the neonates brought unaccompanied.

CONCLUSION:

The score devised by our study is simple and effective in predicting mortality and highlights the need for aggressive management on arrival for better outcome.Neonates accompanied by trained personnel had a better outcome.

Keywords: Neonatal transport, vital parameters ,score ,outcome ,personnel accompanied.

INTRODUCTION

Neonatal mortality is a major concern globally, around four million neonates die every year primarily in underdeveloped countries with limited resources[1,2] .In India alone around one million babies die each year before they complete first 30 days of life contributing to one fourth of the global burden[3] . Decentralisation of the community based health systems are common in these regions where the neonate has to be transported to the referral institute for advanced care.

Neonatal mortality in India is 32 per thousand with no further decline for the last decade[4,5].Most common biological causes for neonatal deaths being preterm delivery (29%), asphyxia (23%) and severe infections, such as sepsis and pneumonia (25%). Existing interventions can prevent two-thirds or more of these deaths if they reach those in need.[6,7].These conditions can be easily treated and effectively managed with appropriate level of care, unfortunately not all the medical centres provide specialised care for the neonates, hence these neonates has to be transported to the tertiary care centre where the facilities are available.

The non-biological causes of neonatal deaths are socio economic conditions, illiteracy, gender inequality. Most biological causes are not

preventable but the non- biological causes can be modified by creating awareness[8] .

It has been studied that antenatal maternal transport has a very good outcome when compared to neonatal transports. It is estimated that antenatal maternal transfer is impossible in 50% of high-risk pregnancies. In these situations, neonatal transport must be performed by specially trained teams skilled in adequate stabilization and effective management during transport.

One in ten babies born require intensive care in the first week of life, unexpected delivery of premature babies in peripheries warrants a well-trained and efficient transport team to transport these out born to the centre which are specialised in the care of these neonates .These critically ill neonates have to undergo various physical hazards in the form of noise, vibration ,deceleration or acceleration forces and temperature instability all of which has the ability to destabilise the sick neonate who is already struggling hard to maintain normal homeostasis[9]. Neonatal transport is one of the major predictor of outcome of transported sick neonates. A well trained and dedicated transport team is the pre requisite for the better outcome. Lack of proper transport facilities is one of the common factors contributing to the poor outcomes in neonates.

Transportation of sick neonates under controlled conditions has a direct effect on morbidity and mortality[34].

During transport of such new born a stable micro environment is important. Ideally the neonate should be stabilised before transport and stabilisation should be continued during transport[9]. The high mortality in neonates could be due to the lack of early recognition of severe illness, lack of early and safe transport and lack of appropriate care.

Transport of neonate depends largely on the mode of transport, trained personnel accompanying the child, adequate equipment and appropriate drugs. Instability or complications during the transport leads to increased morbidity and mortality in these vulnerable babies[14].

A specialised neonatal transport service may decrease the metabolic derangements and temperature related morbidity. Babies who were effectively transported had a good survival rate compared to babies who were brought by their own mode of transportation[34].

NETS:

Newborn emergency transport services created on 1976 in co-operation of four hospitals in Melbourne. NETS[36,37,38] is an independent organisation which guards it autonomy and ensures that every neonate receive complete care during transport. NETS Victoria was established on 1976 to prevent the derangements occurring during the transport. Initially they retrieves only neonates which expands to include infants and children upto 16 years of age.

NEONATAL TRANSPORT:

Although the history of neonatal transport began in late 1960 and early 1970 transport at those times were in ad hoc manner mostly done in police van or other public modes of transport but nowadays the transport team function as an extension of NICU providing optimum care. This is not uniform in all countries states and cities. Many transport services and centres have grown without proper and clear attention to co-ordination and regionalisation of services.

Transport of neonates can be intra-facility or inter-facility transport which depends on the conditions .Each modes of transport requires a well -planned, organised team with fully equipped vehicles along with the competent personnel.

TRANSPORT COMMUNICATION:

Before commencing the transport the referring physician should contact and inform the referral hospital physician regarding the need for transport and condition of the neonate before transport. This communication not only prepares the referral hospital to receive the neonate but also to the referring physician in acute management of the neonate prior to transport.

MODES OF TRANSPORT:

Having informed the referral hospital the modes of transport must be chosen for transport. Most of the time ground level transport is ideal since it delivers the care door to door, number of treating personnel can be accommodated and the family members also can be accommodated and moreover it is efficient for rural and remote areas. When long duration of travel is a concern and the general condition of the baby is critical that long duration is detrimental for the health of the baby then air mode can be used. In addition to the risk of vibration, noise, accidents air travel carries the risk of acceleration and deceleration forces, pressure variation, weather constraints and humidity which is altered on higher altitude.

Air transport also carries the risk of high pressure and low oxygen content in the atmosphere which requires to increase the Fio2 and the air travel is particularly life threatening in neonates with air in enclosed cavities like pneumothorax.

Care during transport of sick neonate is often a neglected area in developing countries. Hence it is not uncommon to see blue, limp, cold babies in the emergency room.

During stabilisation all neonates should be assessed pertaining to temperature, airway, breathing, circulation ,glucose .The success of neonatal transport depends mainly on the early identification of sick neonates ,pre transport stabilisation ,early referral , care during transport and institution of appropriate care. There are many pre transport stabilisation programme like S.T.A.B.L.E[11],SAFER[12]& TOPS[13]which mainly concentrates on the vital parameter stabilisation prior to the transport.

S.T.A.B.L.E Programme:

S.T.A.B.L.E is an acronym for

Sugar (glucose),

Temperature,

Airway and

Blood pressure management;

Laboratory evaluation (with attention to identification and treatment of neonatal infection);

Emotional support for families.

It is a nationwise distributed provider programme which address the pre stabilisation and post resuscitation care of the new born.

INDICATIONS FOR TRANSPORT:

Transport of neonates from one centre to other centre is not that easy as expected. First the parents should be counselled regarding the need and indication for which the neonates are being referred because transport of neonates in an unorganised way has a terrible outcome. Indications for referral are:

1. Prematurity and/or birth weight <1,500 g.
2. Gestational age <32 weeks.
3. Respiratory distress requiring ventilatory support (continuous positive airway pressure [CPAP], ventilation).
4. Seizures.
5. Congenital anomalies and/or inborn errors of metabolism.
6. Congenital heart disease or cardiac arrhythmias requiring cardiac services.
7. Severe hypoxic-ischemic injury.
8. Other conditions requiring neonatology consultation and consideration of transfer.
    a) Severe hyperbilirubinemia possibly requiring exchange transfusion.
    b) Infant of diabetic mothers.
    c) Severe intrauterine growth restriction.

d) Birth weight between 1,500 and 2,000 g and gestational age between 32 and 36 weeks.

e) Procedures unavailable at referring hospital.(15)

MANAGEMENT BEFORE TRANSPORT:

The referring hospital should stabilise the neonates and refer the child with proper referral details and indications for referral. It is a pre requisite for the referring physician or staff to carry out the following steps before the transport team arrives the hospital.

1. Maintain airway, oxygenation, and thermal stability.
2. Normalize circulatory deficits.
3. Maintain adequate blood glucose concentration.
4. Secure umbilical venous access, if appropriate.
5. Secure umbilical arterial access, if appropriate.
6. Obtain appropriate cultures and give first doses of antibiotics.
7. Insert a Nasogastric tube and decompress the stomach.
8. Have a recent chest radiograph and other applicable studies available.
9. Obtain initial transport consent from parents.
10. Maximize the parents' ability to be near their newborn.
11. Obtain copies of obstetric and neonatal charts for the transport team[15].

Before transportation of the sick neonates it is of paramount important to stabilise the neonates. Most of the time it is not possible for physician to be a part of the team in that situation the trained staff or paramedical workers can assess the neonates and stabilise them.

During transport care should be provided to maintain the temperature, the neonates should be transported in incubators. The incubators should not be disturbed during transport to prevent loss of temperature. The referral institute should be informed prior to transport so that there is no delay in the institution of care. The referring physician should properly refer the child with antenatal details, indications for delivery, the modes of transport and the indications for referral.

CARE DURING TRANSPORT:

Neonates transported by the trained team had favourable outcome when compared to the unorganised transport or by using own modes of transport. Care during transport is equally important as the pre transport stabilisation. During transport the transport team should concentrate on the same vital parameters they stabilise previously. The vital parameters such as

- THERMO REGULATION
- AIRWAY
- OXYGEN THERAPY AND SATURATION
- PERFUSION
- BLOOD GLUCOSE

Apart from these parameters care should be taken while transporting neonates with seizures.

THERMAL REGULATION:

The Major contributor in neonatal morbidity and mortality is the temperature instability hence it is also more important to be maintained during the transport. Term infants can maintain thermoregulation by means of thick subcutaneous pad of fat and by non-shivering thermogenesis by the action of nor adrenaline in the brown adipose tissue, which uncouples the oxidative phosphorylation thereby liberating heat.

The transported babies are in a risk for exposure to cold atmosphere if they were not kept in incubators. Hypothermia is the forerunner of hypoxemia, hypoglycaemia, metabolic acidosis, persistent pulmonary hypertension. Hence a simple and efficient way of providing a thermo neutral environment to these neonates will prevent these complications.

Unfortunately premature babies have less subcutaneous fat and brown adipose tissue hence temperature regulation in these babies especially

very preterm babies is the need of the hour during the transport. Silverman et al (1958) demonstrated that using a higher incubator temperature, even without additional humidity resulted in improved premature survival rates.

Vohra et al demonstrated additional measures such as chemical gel packs and polyethylene occlusive skin wrapping help in maintaining the temperature of an infant with very LBW. In stable preterm babies KMC can also be used to prevent hypothermia.

Not only hypothermia but also elevated body temperature is associated with poor outcome. Hyperthermia is commonly seen in neonates with increased metabolic rate, neonatal seizures and dehydration, but the most common reason being the high ambient temperature and humidity.

Yager et al describes that neonates who were subjected to therapeutic hypothermia for HIE those neonates with elevated body temperature had poor neurological outcome when compared to the neonates with normal body temperature.

Humidity also has an extremely important role in temperature control of LBW infants, especially those receiving mechanical ventilator support. The importance of delivering humidified gas to neonates receiving mechanical ventilation is widely acknowledged.

Ventilation with dry gases affects the airway epithelium in very LBW infants, and it can result in hypothermia secondary to their large surface area–to–body mass ratio and their relatively large respiratory minute volume. Humidifying the incubator and the ventilator system helps in thermoregulation while transporting very LBW neonates.

OXYGEN THERAPY:

Neonates presenting with respiratory distress and failure invariably has hypoxemia. Hypoxemia could be a result of reduced alveolar oxygen, reduced ventilation perfusion ratio, reduced diffusion capacity and right to left shunt. The most common form of therapy for hypoxemia consists of oxygen supplementation. The role of oxygen therapy in these neonates depends on the underlying conditions. The goal of oxygen therapy is to maintain adequate tissue oxygenation especially for central nervous system and myocardium. Normal Sao2 for room-air-breathing term or healthy preterm infants is reportedly greater than 93%, with Pao2 levels above 70 mm Hg.

In neonates, supplemental O2 is usually administered by means of a head box, mask, nasal cannula, nasal continuous positive airway pressure (CPAP), or a mechanical ventilator. Earlier strategies with improved oxygenation to prevent hypoxemia leads to retinopathy of prematurity and blindness, while curtailing oxygen level leads to poor neuro-developmental outcome. The premature infants are more prone for oxygen toxicity due to their immature anti- oxidant system .Hence the neonates on oxygen supplementation should be on continuous oxygen saturation monitoring and the saturation should be maintained in an optimum range to prevent these complications.

PERFUSION:

Hypotension is a late finding of shock in neonates. Earlier and more sensitive signs of impending decompensation include persistent tachycardia despite adequate intravascular volume and temperature control, poor tissue perfusion and metabolic acidosis. Treatment of shock should occur before transport during the stabilization phase of management, although the patient in profound shock and with significant acidosis at presentation may require significant time for resolution of organ dysfunction and perfusion and clearance of acidosis.

These neonates should be treated with fluid boluses and if needed inotropic supports should be started and referred. Sympathomimetic amines are the most commonly used inotropic agents which can be endogenous (dopamine and epinephrine) or synthetic (dobutamine and isoproterenol).

Dopamine being a norepinephrine precursor it acts on dopaminergic, β1-adrenergic, and α-adrenergic receptors in a dose-dependent manner. Dopamine improves myocardial contractility thereby increases the stroke volume. This increase leads to improved cardiac output and higher mean arterial pressure, with resultant increased urine output. There is a low incidence of side effects at doses less than 10 μg/kg/min.

Dobutamine an analogue of dopamine stimulates β1-adrenergic receptors predominantly, with relatively weak β2-adrenergic receptor and α-adrenergic receptor activity. No definite benefit has been found in the use of dopamine versus dobutamine, although dopamine is more likely to increase the systemic blood pressure in the short term. In a study conducted by Subedhar et al it was perceived that there is no differences in outcomes or mortality were found between the two inotropes. Both drugs are generally initiated at 3 to 5μg/kg/min.

Epinephrine may also be used in neonates with hypotension and hemodynamic deterioration. Epinephrine has α1-, α2-, β1-, and β2-adrenergic effects. Few trials have been done to recommend epinephrine over other agents. A randomized controlled trial conducted by Valverde[39]comparing epinephrine and dopamine in LBW infants found equal efficacy in treating hypotension. The recommended starting dose is 0.03 to 0.05 μg/kg/min.

Isoproterenol stimulates β1- and β2-adrenergic receptors.

It has greater chronotropic effect and stronger vasodilatory effect because of the β2 stimulation. It needs to be started at low dose and titrated to effect, because of the strong chronotropic effect. Chronotropic effects will precede inotropic effects in a responsive heart and can produce tachyarrhythmias. Recommended starting dose is 0.01 to 0.05 μg/kg/min.

SEIZURES:

Cowen et al demonstrated that highest rate of seizures in paediatrics occur in the neonatal period. Before initiating the protocol therapy for the seizures the transport team should be aware of various other metabolic conditions which present with seizures like hypoglycaemia and hypocalcemia . Having initiated the treatment the

transport team must be very vigilant and periodic assessment of airway, breathing and circulation should be done since most anticonvulsants commonly produces hypotension and respiratory depression as side effects.

HYPOGLYCEMIA:

Hypoglycaemia is defined as low circulating glucose concentrations, but the actual neonatal threshold value is still debated. Severe hypoglycaemia is a well-known risk factor for neuronal cell death and adverse neuro-developmental outcomes. Therefore the hypoglycemia should be recognized and treated in a timely manner with intravenous fluids or feedings. Hypoglycaemia is not a problem in utero since there is a constant supply of glucose to the fetus by means of placenta but once the child is delivered this constant supply is abolished ,soon after birth there is surge of catecholamines ,glucagon which stimulates glycogenolysis and gluconeogenesis in the hepatic storage form thereby maintaining the euglycemic state.

Hence it is not common to see hypoglycaemia in a well term baby who is on breast feeding but the transported babies are less likely to be breast fed due to their illness or the mother may not accompany the child. In premature babies there is reduced level of glycogen storage which

leads to hypoglycaemia if not provided with feeding or iv maintenance. Hence the transport team must be well aware of the conditions where they have to monitor blood sugar like:

a) Very low birth weight infants (<1500grams)
b) Preterm infants (<35 weeks)
c) Small for gestational age infants (SGA) with birth weight <10th percentile
d) Infant of diabetic mother (insulin dependent and gestational diabetes)
e) Large for gestational age (LGA) infants with birth weight >90th percentile.
f) Infants with Rh-hemolytic disease.
g) Infants born to mothers receiving therapy with terbutaline/propranolol/oral hypoglycemic agents.
h) Neonates with perinatal asphyxia, polycythemia, sepsis, shock, respiratory distress, hypothermia
i) Infants with morphological growth retardation.
j) Infants on intravenousfluids and total parenteral nutrition.

If the blood sugar is less than 40 to 45 mg/dL, the hypoglycaemia protocol should be followed for management followed by maintenance fluids.

Care during transport is equally important as pre transport stabilisation hence neonates transported by specialised transport vehicles with persons trained in neonatal stabilisation had better outcome when compared to neonates brought by other modes of transport. Unsatisfactory and unorganised transportation has been observed frequently among transported sick babies in our country highlighting the need for depth of assessment of neonatal transportation in our country.

NON INVASIVE MONITORING DURING TRANSPORT:

During transport both the transport team and the critically ill neonates were exposed to vibration and noise. All the equipment used in the NICU cannot be used in these conditions. Clinical assessment of the baby during transport is not always feasible hence non- invasive means of measuring the vital parameters are crucial.

PULSE OXIMETRY

Heart rate is the most important parameter which is altered in both respiratory and cardiovascular conditions .In a study conducted by Kamlin et al heart rate displayed in pulse oximeter monitor is as accurate as the ECG recorded heart rate also the monitor continuously displays the heart rate which allows the transport team to intervene wherever necessary.

NON –INVASIVE BLOOD PRESSURE MONITORING:

Normal blood pressure value for the neonate was interpreted according to the gestational age, birth weight, post natal age. Different cut off has been used by the neonatologist. It is taken as hypotension if the systolic or diastolic blood pressure is $<10^{th}$ percentile for that particular age and sex. Mean arterial pressure is taken as the gestational age in full completed months in the absence of increased lactate or oliguria is considered as normotensive. Invasive intra- arterial blood pressure monitoring is ideal in critically ill child. Non- invasive monitoring is not advised since the readings are taken in intervals and not continuous moreover the apparatus is susceptible for motion artefacts. However non invasive blood pressure monitoring is useful in determining the trend of blood pressure variation.(16)

TEMPERATURE:

Temperature monitoring by skin probe is not entertained since the values are altered in conditions with poor skin perfusion. Ideally rectal thermometer to measure the core temperature is advised, during transport however axillary temperature can be measured[16.]

On arrival in the tertiary care hospital the vital parameters should be assessed which has a significant prognosticating value. Apart from basic vital parameters in our study perfusion index was also measured.

PERFUSION INDEX:

Under normal conditions the skin perfusion is more than oxygen demand but during the period of stress body has to maintain the blood supply to vital organs like heart, brain and adrenals hence the skin perfusion is reduced which can be measured by PI. It is the measure to find the perfusion of a particular site. It works on the principle of signal extraction technology[27], it varies with the relative amount of perfusion in that area and not with the oxygenation .The relationship of the pulsatile and non-pulsatile amounts of blood on that particular area is the perfusion index at that site.

Perfusion index depends on the vasomotor tone, stroke volume and skin temperature. Since PI was measured non- invasively the conditions which results in low systemic perfusion results in low PI.PI cannot be recorded in ordinary pulse oximeter which measures spo2, it is recorded by the pulse oximeter using signal extraction technology.

MASIMO PULSE OXIMETER

SCORING SYSTEM IN NEONATAL TRANSPORT:

Similar to Apgar and Downes score there are many scores which were used in the assessment of effect of transport on the neonates. The scores were used in pre transport and post transport assessment of the vital parameters, mortality risks.

TRIPS	-	Transport Risk Index of Physiological Stability.
CRIB	-	Clinical Risk Index for Babies.
SNAPPE II	-	Score for Neonatal Acute Physiology-Perinatal Extension.
MINT	-	The Mortality Index for Neonatal Transport.

HERMANSEN SCORE

NEONATAL STABILISATION SCORE

PREDICTIVE SCORE

SICK NEONATAL SCORE

TOPS-Temperature, Oxygen saturation, Perfusion, Sugar.

In order to strengthen neonatal services in the country, funds were provided to the States for establishing and running Special Newborn Care Units (SNCU), Newborn Stabilization Units (NBSU) and Newborn Baby Care Corners (NBCC). Funds have also been allocated to States for implementing **Janani Shishu Suraksha Karyakram (JSSK)** which provides for free care and transport of sick newborn for first 30 days of birth.

The introduction of 108 neonatal free ambulance service by our Tamilnadu government under the TAMILNADU HEALTH SYSTEM PROJECT in partnership with private organisation has been a great boon to not only to the poor people but also for the medical fraternity to treat the sick neonates at the right time avoiding the delay in instituting the appropriate care. The existing 108 Neonatal ambulances were augmented with neonatal support system with resuscitation equipments such as Neonatal incubator, Oxygen Cylinder, Air cylinder, IV syringe infusion pump with stand (battery operated), Pulse oximeter, resuscitation kits

DEDICATED 108 NEONATAL AMBULANCE

Institute of Child Health and Hospital for Children is the tertiary referral institute of Tamilnadu for all neonatal and paediatric cases, which receives several sick neonates daily not only from Tamilnadu but also from Andhra Pradesh. Most of them are transported without proper stabilisation from the referring hospitals. The care during their transport is also not satisfactory. Hence all supportive care in NICU for these sick neonates are sometimes futile. So this study was designed to device an objective score to assess the condition of the neonate at arrival and to correlate it with the outcome and to compare the outcome in neonates accompanied by trained personnel and those neonates who were brought unaccompanied.

OBJECTIVES

The present study was conducted with the following objectives

To devise and apply a clinical score in sick neonates received in our unit and its impact on the outcome of the neonate.

To compare the difference on the outcome in children accompanied by trained personnel and those who were received unaccompanied by a trained personnel

REVIEW OF LITERATURE

India being a vast nation comprises of about billion population with majority residing in the rural areas and hilly areas where only basic medical facilities are available .A significant proportion of newborn need to be shifted to tertiary care centre owing to their medical, surgical problems. These newborns were termed outborn since they were transported from their place of birth to place of care .Limitation of trained persons, experts and resources are mainly responsible for not providing tertiary care services at every hospitals. The lack of trained personnel accompanying the newborn en route,lack of proper road facilities.

Kollee[17] et al conducted a retrospective study to compare the mortality risk in the neonatal and maternal transport group. They included 162 neonates who were <32 weeks of gestation or birth weight <1500 grams. Mortality risk factors like caesarean section ,gender ,apgar score, intubation at delivery, low birth weight and gestational age were associated with the outcome .Logistic regression was done and the results depicts that mortality is high in neonatal transport group than maternal transport group.

Hood and associates documented a 60% greater mortality rate when neonates were transferred by an untrained versus a trained neonatal transport team. Hypothermia and acidosis in particular were more common after transfer by an untrained team.

Score for Neonatal Acute Physiology - Perinatal Extension (SNAPPE II)

In the 1990s, Richardson et al. developed a system of assessment for the most important physiological variables affecting mortality in the first hours following admission. SNAP assesses the worst clinical status found in the first 24 hours after admission using points assigned to 26 physiological variables: the higher the score, the greater the risk of death. With the Score for Neonatal Acute Physiology Perinatal Extension (SNAPPE), 3 additional variables were added: birth weight, the Apgar score, and being small for gestational age . Due to the time needed to complete scoring, the authors subsequently developed a simplified version of the score, using only 5 variables to be measured within 12 hours of admission. The simplified scoring system was designated SNAP II and its perinatal extension SNAPPE II(18).These scoring systems have been validated in studies with large numbers of patients and have been

shown to be good predictors of mortality in newborns in neonatal intensive care units (NICU).

Score for Neonatal Acute Physiology-Perinatal Extension II score

VARIABLES	MEASURE	SCORE
LOWEST MAP	>29mm hg 20-29 mm hg <20 mm hg	0 9 19
LOWEST TEMPERATURE	>35.6*C 35-35.6*C <35*C	0 8 15
PaO2/FiO2	>2.49 1-2.49 0.3-0.99	0 5 16
LOWEST pH	>7.19 7.10-7.19 <7.10	0 7 16
SEIZURES	NO YES	0 5
URINE OUTPUT	>0.9ml/kg/hr 0.1-0.9 ml/kg/hr <0.1 ml/kg/hr	0 5 18
BIRTH WEIGHT	>999 grams 750-999 grams <750 grams	0 10 17
Small for Gestational Age	>3 rd percentile <3 rd percentile	0 12
APGAR	>7 <7	0 18

MINT SCORE:

Provision of the most effective neonatal transport service requires accurate assessment of disease severity and prediction of prognosis, to facilitate appropriate triage and resource allocation. The transport process starts at the time the retrieval service receives the first call from the referring hospital therefore, it is desirable to predict outcomes accurately at that point of contact. The MINT score comprises of 7 variables including apgar at 1 min pH, age, birth weight,Pao2, congenital anomaly, intubated at the time of call.

Simon[19] et al conducted study depending on the data collected. On receiving the call from the referring hospital infant details were collected and a transport team is mobilised and additional data is collected by that team at the time of first contact with the patient, the neonates were stabilised and before transport another set of readings were taken and shifted. On admission again the details were collected.

The Mortality Index for Neonatal Transport score

PARAMETERS	POINTS
pH <6.9 6.9-7.1 >7.1	10 4 0
Age 0-1 hr >1hr	 4 0
Apgar 0 1 2 3 >3	 8 5 2 2 0
Birth weight <750g 750-1000g 1000-1500g >1500g	 5 2 1 0
PaO2 <3kpa >3kpa	 2 0
Congenital anomaly Yes No	 5 0
Intubated at the time of call Yes No	 6 0

Eighty per cent of infants with MINT scores of >20 died. The MINT score had an area under the ROC curve of 0.80 (95% CI: 0.76-0.83)for death in the perinatal period (first week afterbirth) and an area under the ROC curve of 0.80 (95% CI: 0.76-0.83) for death in the neonatal period (first month after birth) (Fig 2). For VLBW infants, the MINT score had areas under the ROC curves for perinatal and neonatal death of 0.69 (95% CI: 0.60-0.77) and 0.68 (95% CI: 0.60-0.76), respectively. Gestational age and birth weight had areas under the ROC curves of 0.64 (95% CI: 0.56-0.73) and 0.67 (95%CI: 0.59-0.76), respectively.

TRIPS SCORE

(TRANSPORT RISK INDEX OF PHYSIOLOGICAL STABILITY):

The TRIPS score is a tool that evaluates the transport process and stability of the newborn infant during transport. The TRIPS score allowed the discrimination of patients ´mortality in the NICU with a relative response curve (ROC curve) of 0.83, regardless of their GA. TRIPS was classified in 4categories according to the measured value , low score (0-10), moderate score (11-20),high score (21-30) and very high score (> 30).higher value indicates very sick neonate. Pre- and post- transport measurements allowed the detection of changes in the clinical condition

during referral, an increase in score during referral was associated with higher neonatal mortality.

Parameter	Value	TRIPS score
Temperature	<36.1*C- >37.6*C	8
	36.1-36.4 or 37.2-37.6*C	1
	36.5-37.1*C	0
Respiratory status	Severe(apnea,gasping,intubated)	14
	Moderate(RR>60/min and/or sat <85%)	5
	Mild(RR,60/min and/or sat >85%)	0
Systolic blood pressure	<20 mm Hg	26
	20-40 mm Hg	16
	>40 mm Hg	0
Responds to painful stimulus	No response,seizures,on muscle relaxant	17
	Lethargic,no crying	6
	Crying and withdrawal	0

Gustava[20] et al conducted a prospective study with 160 neonates referred. Most were referred due to cardio-respiratory (50%) or surgical (34%) illnesses. Of them, 91 (57%) had clinical deterioration and46% hypothermia. Forty nine neonates required ICRS and 28 died (twelve before 7 days after admittance).

Variables assessed were not associated with the risk of clinical deterioration. Mortality was higher in the group with clinical deterioration (OR: 3.34; 95% CI: 1.2-8.7), even when severity of the clinical picture was considered (ORA:3; 95% CI: 1.2-8.3). Clinical deterioration during transport was associated with the need for resuscitation.

Predictive score for clinical complications during intra-hospital transports of infants

Vieira *et al*[21]. (2007) reported a prevalence of hypothermia in 17% of intra-hospital NICU transports; the factors associated with developing hypothermia were prolonged transports, body weight less than 3500 g during transport and presence of a central nervous system (CNS) malformation.

A tool to predict the risk of clinical complications during intra-hospital transport could help to plan specific preventive measures. This is the first study that developed and validated a score to predict the presence of clinical complications during intra-hospital transports of infants hospitalized in neonatal units.

At least one clinical complication occurred during 159 transports (22.9%); hypothermia (12.7%), hyperoxia (5.6%), desaturation (4.1%) and need for increase the respiratory support (2.3%) were the most frequent complications. Hypothermia and respiratory compromise were the two deranged factors during transport in this study.

Variables	OR	95% CI	p	Score
Gestational age <28 weeks	3.18	1.01-10.05	0.049	6
Gestational age 28-34 weeks	1.50	0.75-3.00	0.248	3
Gestational age >34 weeks	1.00	Reference		2
Pre-transport temperature <36.3°C or >37.0°C	1.53	0.82-2.87	0.184	3
Pre-transport temperature 36.3-37.0°C	1.00	Reference		2
CNS malformation	1.86	0.93-3.71	0.078	4
Other diseases	1.00	Reference		2
Transport for surgery	2.34	1.04-5.27	0.036	5
Transport for MRI or CT scan	1.237	0.60-2.56	0.567	3
Other destinations	1.000	Reference		2
Mechanical ventilation	3.98	1.52-8.93	<0.001	8
Supplemental oxygen therapy	3.26	1.72-6.17	0.004	7
No oxygen therapy	1.00	Reference		2

MRI: magnetic resonance imaging; CT: computed tomography. *Hosmer-Lemeshow test*: p = 0.443.

NEONATAL STABILISATION SCORE:

The neonatal mortality can be reduced by a good neonatal stabilisation, this has been converted into a score named NEONATAL STABILISATION SCORE which mainly assess five parameters namely vital signs, respiratory support, laboratory parameters, iv fluids administration and specific management. A score was graded as 0, 1, 2 with the maximum score of 10 implies excellent stabilisation. Mortality rates were higher in low NSS group and the odds of death was 2.39 times greater in newborn with low NSS(22).

TOPS

Mathur et al conducted this prospective study in maulanaazad medical college to evaluate the role of TOPS (a simplified assessment of neonatal acute physiology) in predicting mortality in transported neonates. This study includes 175 newborns admitted with weight >1000g, temperature, oxygen saturation, perfusion (CRT),sugar were recorded during the time of admission, SNAPPE II was also recorded at 12 hours of admission. All the TOPS variable has high correlation with mortality in univariate analysis. Fatality was 100% when all the four parameters were deranged[23]. This study concludes that TOPS has an equally good prediction for mortality as SNAPPE II and can be used as a

simple and reliable tool in the assessment of risk of fatality at the admission itself.

Ekta dalal et al conducted this cross sectional, descriptive study in 300 neonates and measures TOPS in these neonates during the admission and was compared with the outcome. Among the four variables hypothermia was commonly noted. Failure of resolution of the deranged parameters after 1 hour implies a poor outcome(24).

PERFUSION INDEX:

Franscesco et al[25] conducted a prospective study determining the variation of perfusion index in preterm babies. All the thirty babies enrolled in the study completed the trial. It was found that the perfusion index gradually improves from day1 to day 7 probably due to increased blood flow and decreased peripheral vascular resistance due to vasodilatation. The perfusion index was found to be in the range of 0.9-1.3 from day 1-7.The study highlights that perfusion index measured should be interpreted with the post natal age.

De Felice et al[26] conducted a study in 101 caucasians who were categorised into high risk(43 neonates) and low risk category(58

neonates) by SNAP score and perfusion index was measured in them by using masimo pulse oximeter which works under the principle of signal extraction principle. They found that other parameters like spo2 and PR were not good enough to pick up the severely ill neonate but the perfusion index predictive accuracy with the value of 0.8 was found to be very significant with 95.5% sensitivity and 93.7%specificity.

PI AND CARDIOVASCULAR ALTERATION:

20-40% of neonatal deaths were contributed by cardiovascular anomalies mainly critical heart disease. A prospective study conducted in Sweden to find out the use of perfusion index in critical heart disease[27]. They compare the PI in 10000 normal babies and 9 critical heart disease neonates with left sided obstructive lesion,it was found that the PI value is less than fifth percentile with the cut off of 0.7%.

Another study conducted to predict the correlation between the PI and low superior vena cava flow which is a risk factor for intra ventricular haemorrhage in VLBW babies. SVC flow and PI were obtained in 24 babies ,positive correlation has been achieved between the two with the cut of 0.4 PI to predict low SVC flow with the sensitivity

(87.5%),specificity(86.3%),positive predictive value (38.%9), negative predictive value(98.6%).

SICK NEONATAL SCORE:

Deepak et al conducted this descriptive study in the South India with the objective to describe the indications and mode of transport of extramural neonates, to qualify the condition of neonates at arrival using a simple clinical score to analyse the effect of this clinical score on outcome.

Most of the neonates were transported by private ambulance (36%), followed by taxi (29%), bus (15%), 108 service (11%), two-wheeler (6%) and auto (3%). The indications of transport were sepsis (30.7%), HIE (17.5%) and respiratory distress (15.2%)[28]. Among 60 expired neonates 76% were hypothermic. SNS ≤8 predicted mortality with all the components of SNS significantly correlated with outcome (i.e) lower the score, poorer the outcome. Neonates transported by 108 services and private ambulances had better SNS and outcome compared to neonates transported by other modes of transport.

BuchPankaj et al[29] conducted a prospective descriptive study in the western part of India .In their study most common causes for referral were prematurity, respiratory distress syndrome, asphyxia and sepsis. The

most common modes of transport were by ambulance(26.8%),public transport(22.1%), own modes of transport(23.4%).

Most of the neonates were accompanied by the relatives(73.2%) and very few were accompanied by trained personnel(11.4%).weight less than 1500 grams, hypothermia, hypoglycaemia, prolonged capillary refilling time, unstable airway were the most common factors associated with mortality.

Cheng Chien et al conducted a prospective study in Taiwan, 260 infants were included in the study. The study was conducted in two groups and the results were analysed between the two groups .Hypothermia was noted to be same in two groups, the incidence of hypoglycaemia was less in the second group and academia was also less in the second group. The mortality rate in the second group was significantly lower than the first group.

Mori et al[30] conducted a systematic review and cohort study to describe the impact of duration of transport and mortality ,data were collected for systematic review and all neonates admitted in the hospital of Osaka in Japan during the period of 1980-2000.For the cohort study, among 16 429 subjects, full data were available for 4966 neonates. There

was strong evidence that those transported for >90 min had more than twice the rate of neonatal death (rate ratio [RR] 2.26, 95% confidence interval [CI]: 1.26-4.04) .ForSystematic review: only one cross-sectional study conducted in an urban area in India was identified which showed that neonates with a long duration of transport had 79% higher odds of death than those transported for a short duration.

Kumar Pet al conducted a retrospective study which compares the long duration of transport by specialised team and those transported by other means.The result of the study was 96.2% (154/160) of babies who were transported survived as compared to 89% (114/128) of babies who came on their own (*P*=0.03).The incidence of hypoglycemia, hypothermia, hyperthermia, hypoxia and apnea were significantly more in babies who had come on their own.

Leslie and Stephenson evaluated the physiologic parameters (ie, pH, PaO_2, systolic blood pressure, blood glucose, and temperature) of infants stabilized and transported by NNPs versus physicians. Although nurse practitioners took longer to stabilize infants, their physiologic conditions were improved for pH and PaO_2 in the pre-transport period as well as for temperature and oxygen saturation in the post-transport period.

King et al[31], reported the effect on patient outcomes after change of team composition from nurse-physician team to nurse only. No differences in mortality were found between groups, but improved team response times were significantly shorter for the nurse-only team.

Narang et al[32] conducted a retrospective study in a referral centre in Delhi to determine the predictors of mortality among the transported neonates.Around 300 neonates were enrolled in the study.53% of neonates had normal temperature >36.5°C; 21% (36-36.4°C), 26% (32-35.9°C) and none of the neonates were severely hypothermic (<32°C). Almost 29.6% of admitted neonates were hypoglycemic (<40 mg/dl) and rest 70.3% were normoglycemic (>40 mg/dl). Hypoxemia (SpO_2<90%) was seen in 98 (32.6%) of neonates and 208 (69.3%) neonates had prolonged capillary refill time (>3 s) at admission. Most of the neonates were transported by either a private vehicles (hired taxis/autos/tempos/rickshaws) (123 [41%]) or by a public transport (bus/train) (88 [29.3%]). Ambulance was used for transporting only in 89 neonates (29.6%).Extremely low birth weight and duration for transport > 1 hour were considered as most common predictors for mortality in transported newborn.

A descriptive study conducted in Beijing by Xiang et al to determine the impact of co-ordinated and well organised transport retrieval team on neonatal morbidity and mortality. The study was done in a phased manner ,the results of phase one and two were compared which depicts that number of neonates transported increased in the phase 2 also there was less mortality and morbidity in the neonates transported in phase 2.

A prospective descriptive study[33] conducted by Leslie and Stephenson to compare advanced neonatal nurse practioner and paediatrician accompanied neonatal transfer outcome. Both the groups depicts same trend regarding transport of ventilated babies no adverse event happened during transport in the form of extubation, re-intubation, treatment for pneumothorax and any resuscitative measures seen in both the groups.

Blood glucose,temperature, systolic blood pressure,Spo2,Pao2,pH were measured before and after transport. Among the doctors led babies pre transport pH,Spo2 were worse when compared to ANNP led neonates, on comparing the infants condition before and after transport temperature and SpO2 has improved in ANNP led neonates.

Renelyn conducted a randomised controlled trial to compare the effect of kangaroo mother care with the transport incubator in transporting the stable preterm. Neonates weighing <2200 grams and stable preterm were randomised into two groups, the neonates in the case groups were transported by skin to skin contact kangaroo mother care and the control groups were transported using the transport incubator. Vital parameters like heart rate, respiratory rate, temperature, SpO2, blood glucose were measured before and after transport. The neonates in the case group shows significant reduction in heart rate and respiratory rate, better temperature control and saturation from the incubator group.

METHODOLOGY

STUDY DESIGN **:** PROSPECTIVE DESCRIPTIVE STUDY.

STUDY PERIOD **:** JULY 2014- SEPTEMBER 2014.

STUDY PLACE **:** NEWBORN EMERGENCY ROOM & WARDS, ICH & HC, CHENNAI.

STUDY POPULATION: All neonates admitted into the department of Neonatology

INCLUSION CRITERIA:

All neonates upto 28 days of life requiring admission in the department of neonatology.

EXCLUSION CRITERIA:

1. Neonates with major congenital anomalies.
2. Neonates with surgical conditions.

ETHICS:

Informed consent from the parents and institution ethical review board was obtained.

METHODS:

All neonates brought to our institute who require inpatient management are stabilized in neonatal emergency room and admitted in the neonatal wards. On arrival the neonate'svitals were assessed and the unstable neonates were stabilised and shifted to the ward. During the period of resuscitation demographic data pertaining to the baby and mother, the indications for referral and the modes of transport and whether the baby was accompanied by the trained personnel were collected by the attending paediatrician. These neonates were followed up till discharge or death.

DEMOGRAPHIC DETAILS OF THE BABY:

Age

Sex

Mode of delivery

Gestational age

Birth weight

Need for resuscitation at birth

Apgar score

DEMOGRAPHIC DETAILS IN MOTHER:

1.ANTENATAL COMPLICATIONS:

- Gestational Diabetes Mellitus.
- Pregnancy Induced Hypertension.
- Seizure disorder.
- Premature Rupture of Membrane.
- Cardiac conditions.

2. HISTORY OF ANTENATAL STEROIDS IN PRETERM DELIVERY

TRANSPORT DETAILS:

1. MODE OF TRANSPORT:

- 108 Ambulance
- Private ambulance
- Own modes like auto, train, bus etc.

2.TRAINED PERSONNEL ACCOMPANYING THE CHILD

3. INDICATIONS FOR TRANSPORT:

- Asphyxia
- Sepsis
- Prematurity and low birth weight.
- Respiratory Distress Syndrome
- Seizure
- Hypoglycaemia
- Cardiac conditions
- Respiratory distress
- Hyperbilirubinemia

PRE HOSPITAL TREATMENT:

- Thermal control
- Oxygen therapy
- Fluids
- Inotropes
- Dextrose
- Anticonvulsant therapy.
- Artificial ventilation.

Eight vital parameters were recorded in the neonates on admission in emergency ward before any intervention in our hospital. The parameters were as follows:

1. Heart Rate
2. Respiratory efforts
3. Capillary refilling time
4. Temperature
5. Mean arterial pressure
6. Perfusion index
7. Capillary blood glucose
8. Oxygen saturation.

HEART RATE:

Heart rate was recorded by using the masimo pulse oximeter and was cross checked clinically by auscultation for one full minute. The neonate was said to have tachycardia when the heart rate was >160 beats per minute, bradycardia when the heart rate was <110 beats per minute and normal when it is in the range of 110-160 beats per minute.

RESPIRATORY EFFORT:

The respiration was assessed by counting the respiratory rate, presence or absence of chest retraction, grunt, alar nasal flare and presence of apnea. The respiratory rate was counted for one whole minute, when the rate was more than 60/min it was recorded as tachypnea. Respiratory distress was said to be present when the baby had Downe score of 2 or more out of 10. When the child had shallow breathing or apnea it was categorised as respiratory failure.

CAPILLARY REFILLING TIME:

Capillary refilling time was measured clinically by pressing over the sternum for five seconds and release, the time taken for the refilling of blood was noted. Less than 3 seconds is normal, CRT was recorded as prolonged when it was more than 3 seconds.

MEAN ARTERIAL PRESSURE:

Mean arterial pressure was measured by non-invasive blood pressure monitoring device using the gestation age appropriate size cuff and the readings from the monitor were recorded. Unlike infants and older children there is no clear cut off value for neonates that too for varying gestational age but it can be plotted in the graph with post natal age along the x axis and arterial pressure along y axis with zones for

appropriate gestational age and the baby was categorised as with or without hypotension.

TEMPERATURE:

Axillary temperature of the neonate was recorded with digital thermometer with Celsius scale. Normal body temperature was taken as 36.5-37.4*C, cold stress when the temperature was between 36.1-36.4*C and moderately hypothermic when the temperature was below36*C.

OXYGEN SATURATION:

The saturation was recorded by the masimo pulse oximeter probe was connected to the pre-ductal site i.e in the right upper limb of the baby before the monitor was switched on and the saturation was recorded. The child was then categorised into 3 groups (saturation of <85%,85-92%,>92%).

PERFUSION INDEX:

Perfusion index was recorded from the masimo pulse oximeter which works on the principle of signal extraction technology. The recorded value was categorised with the cut off of 0.9.

CAPILLARY BLOOD GLUCOSE:

Capillary blood glucose was measured by using glucometer using glucose strips, sample was collected by heel prick method and the value was noted. The neonates were categorised as hypoglycemic when the CBG value is less than 40 mgs/dl.

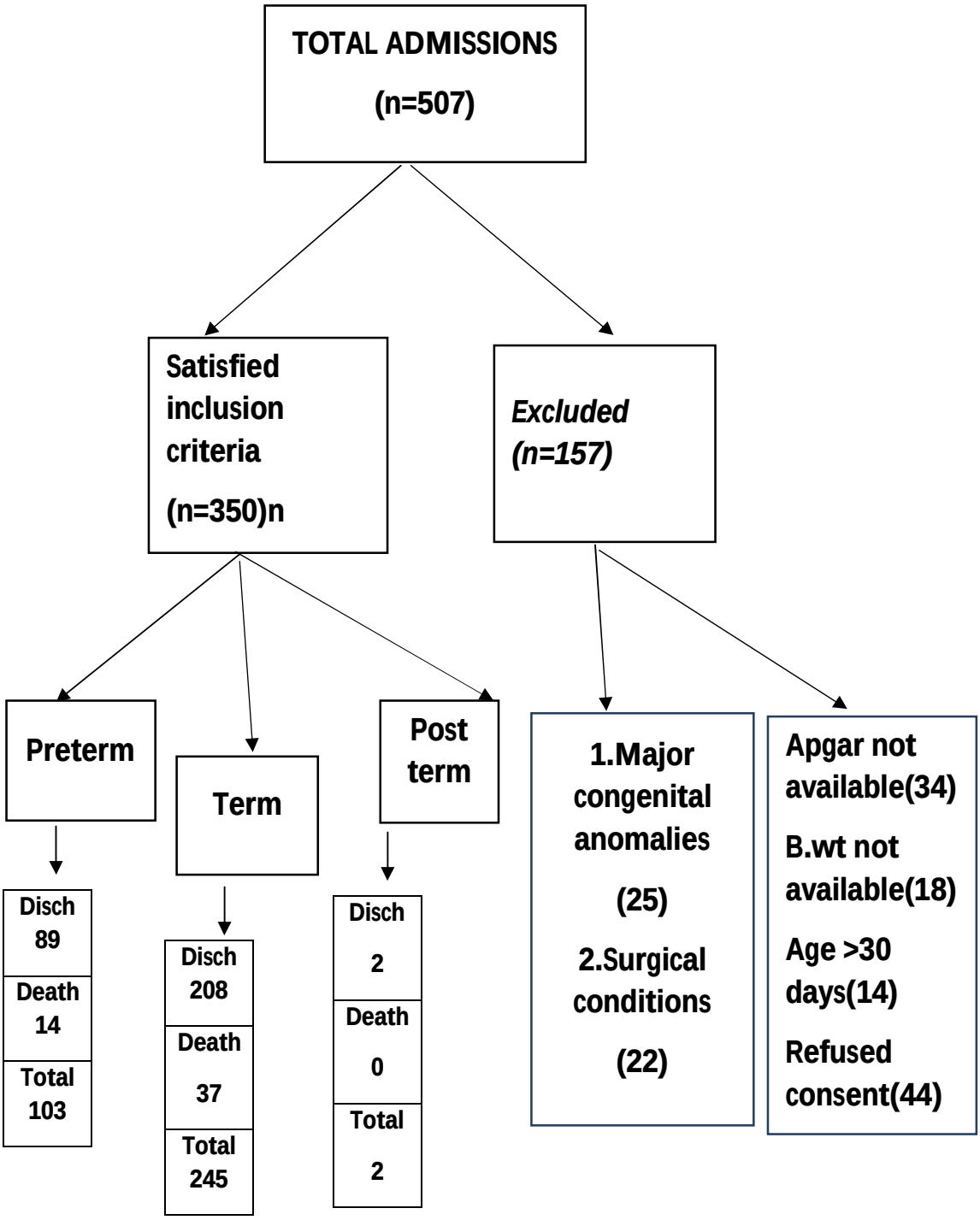
STATISTICAL ANALYSIS:

All these eight vital parameters and Apgar score at 5 minutes, gestational age were collected and each parameter is categorised, analysed and compared with the outcome of the newborn which can be either discharge or death. Statistical analysis was done using SPSS version 17.

All categorical data as well as normally distributed continuous variables were w presented as frequencies and percentages.To determine the association of clinical factors with outcome Chisquare and Fischer exact test were used. To device a clinical score and to find out the most determining parameters among the ten parameters multiple logistic regression was used. To compare the impact of trained personnel accompanying the neonate on outcome chi square test was used. All the values will be considered significant when p value <0.05.

Overview

The total number of outborn babies admitted during the period were 507,of which only 350 babies satisfied the inclusion criteria. The following flowchart describes the overview of the study participants.



SEX RATIO:

Out of the 350 neonates, 58.9% were male child and 41.1% were female child as in Table 1.

GENDER	NUMBER	PERCENTAGE
MALE	206	58.9
FEMALE	144	41.1
TOTAL	**350**	**100**

ANTENATAL COMPLICATIONS:

Maternal complications recorded in our study were GDM(3.1%),PIH(3.7%),PROM(1.1%) and Seizure(0.6%) as in Table 2.

CONDITIONS	NUMBER	PERCENTAGE
PIH	13	3.7
GDM	11	3.1
PROM	4	1.1
SEIZURE	2	0.6

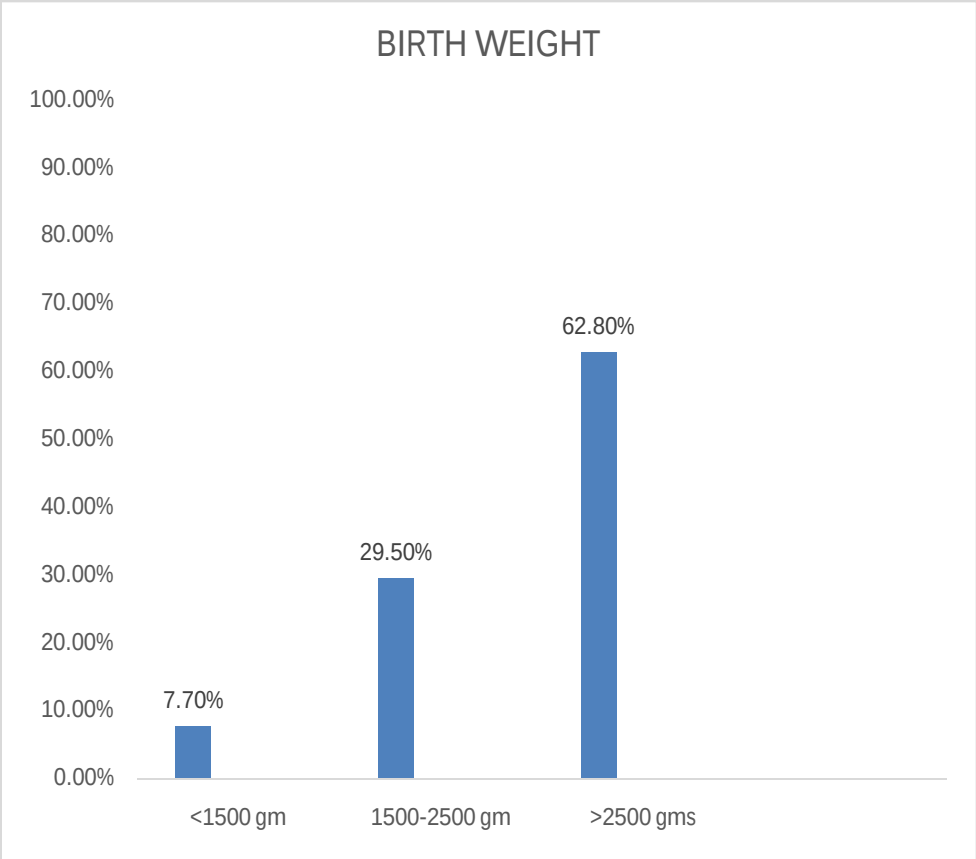
MODE OF DELIVERY:

Most common mode of delivery is vaginal delivery (72.6%), elective LSCS (19.4%), emergency (6%), forceps(1.7%), assisted breech(0.3%) as in Table 3.

MODE OF DELIVERY	NUMBER	PERCENTAGE
VAGINAL DELIVERY	254	72.6
EMERGENCY LSCS	21	6.0
ELECTIVE LSCS	68	19.4
FORCEPS	6	1.7
ASSISTED BREECH	1	0.3

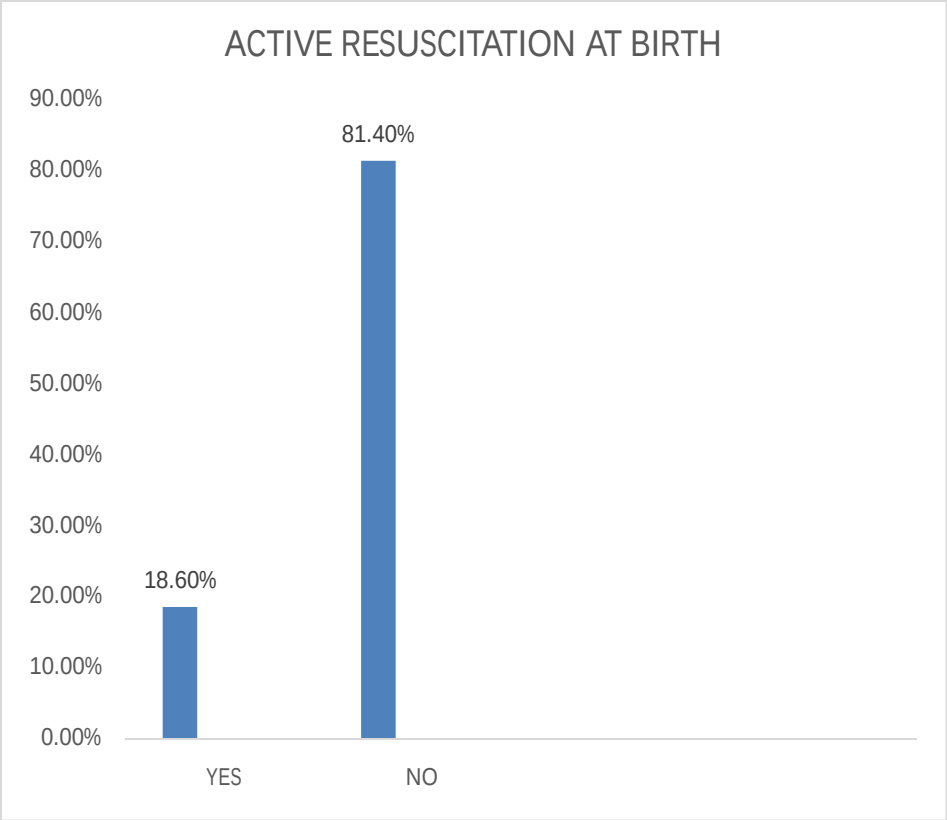
BIRTH WEIGHT:

Most babies were >2500 gms (62.8%), followed by 29.5% neonates with birth weight in the range of 1500-2500 gms and 7.7% were weighing <1500gms as in Fig 1



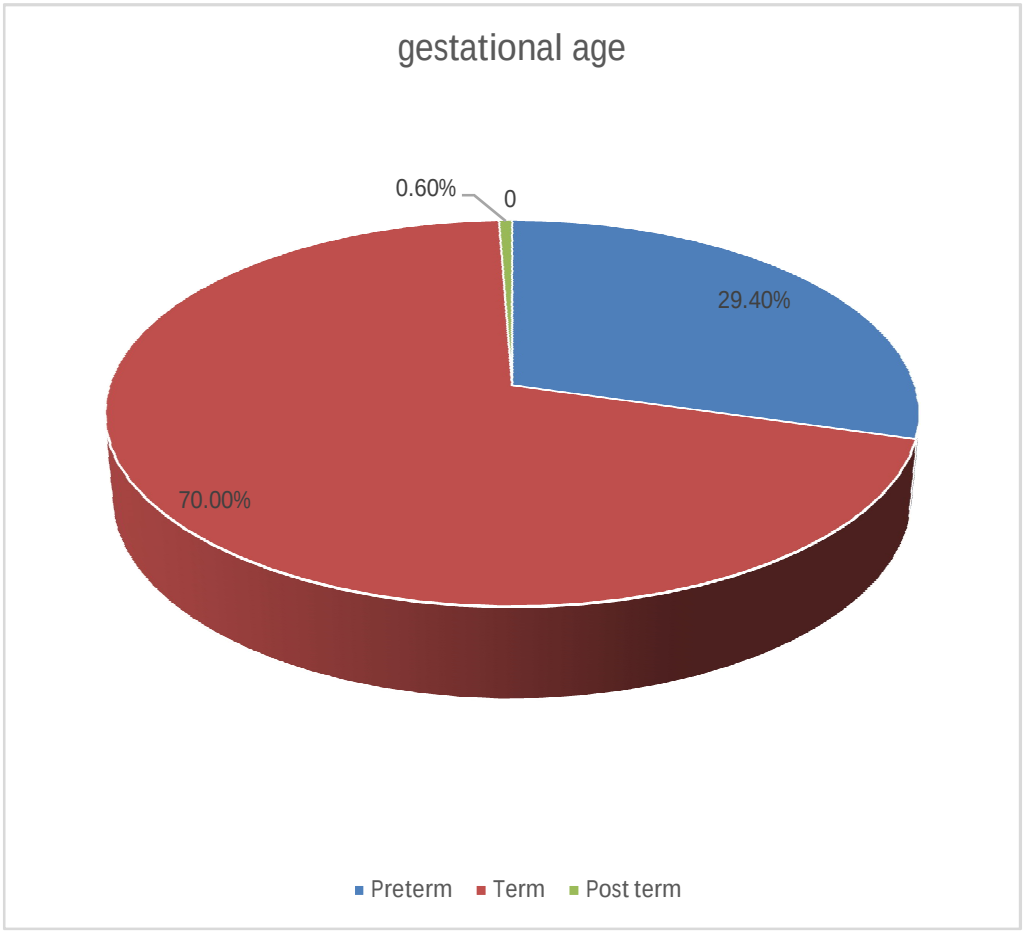
ACTIVE RESUSCITATION AT BIRTH:

Out of 350 babies 65 babies (18.6%) required resuscitation at birth while 285 babies(81.4%) did not require any resuscitation as in Fig 2.



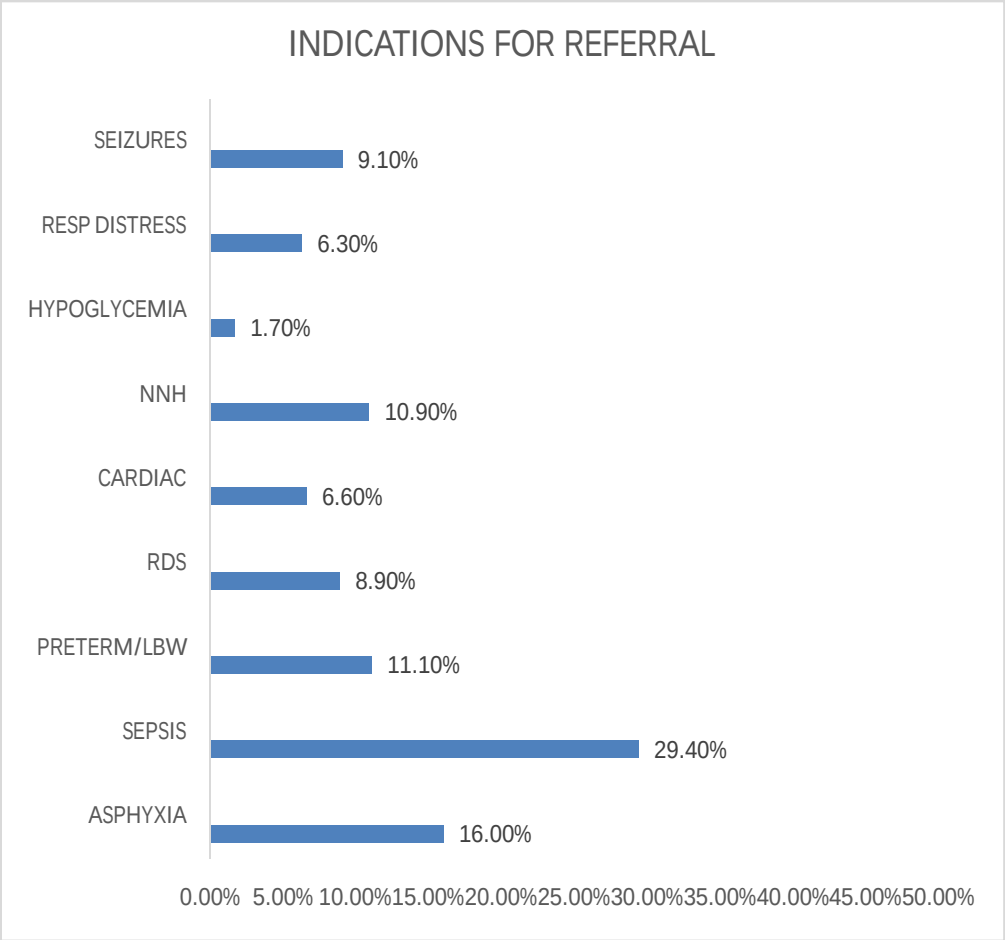
GESTATIONAL AGE:

Out of 350 babies 245 neonates (70%) were term, 103 neonates (29.4%) were preterm, 2 neonates(0.6%)were post term as in Fig 3.



INDICATIONS FOR REFERRAL:

The common indication of transport was sepsis (29.4%) followed by HIE(16%),prematurity(11.1%), hyperbilirubinemia (10.9%) and seizures (9.10%) as in Fig 6.



PRE HOSPITAL THERAPY:

Out of 350 babies, only 3% had received pre-hospital fluid therapy, 1.4% had received inotropic support,1.7% had received dextrose, 6.3% each received anti convulsants and intubated before transport as in Table 4.

PRE HOSPITAL THERAPY		NUMBER	PERCENTAGE
VOLUME EXPANSION	YES	11	3.1
	NO	339	96.9
INOTROPES	YES	5	1.4
	NO	345	98.6
DEXTROSE	YES	6	1.7
	NO	344	98.3
AED	YES	22	6.3
	NO	328	93.7
INTUBATION	YES	22	6.3
	NO	328	93.7

CAUSE RELATED OUTCOME:

Among the babies who succumb Asphyxia (21.43%), Respiratory Distress Syndrome (19.36%) and Prematurity (15.39%) were the common causes. Hypoglycemia (33.63%) and Seizures (25%) were commonly seen in the babies who succumb as in Table 5

INDICATIONS	DISCHARGE (Percentage)	DEATH (Percentage)
ASPHYXIA	78.57	21.43
SEPSIS	87.37	12.63
PREMATURITY& LBW	84.61	15.39
HYPOGLYCEMIA	66.67	33.63
RDS	80.64	19.36
SEIZURES	75	25
HYPERBILIRUBINEMIA	100	0
CARDIAC	91.30	8.7
RESPIRATORY DISTRESS	90.9	9.1

UNIVARIATE ANALYSIS:

All the parameters were compared with the outcome to determine its impact on the outcome by univariate analysis. Except birth weight all nine parameters had significant impact over the outcome as derived by univariate analysis.

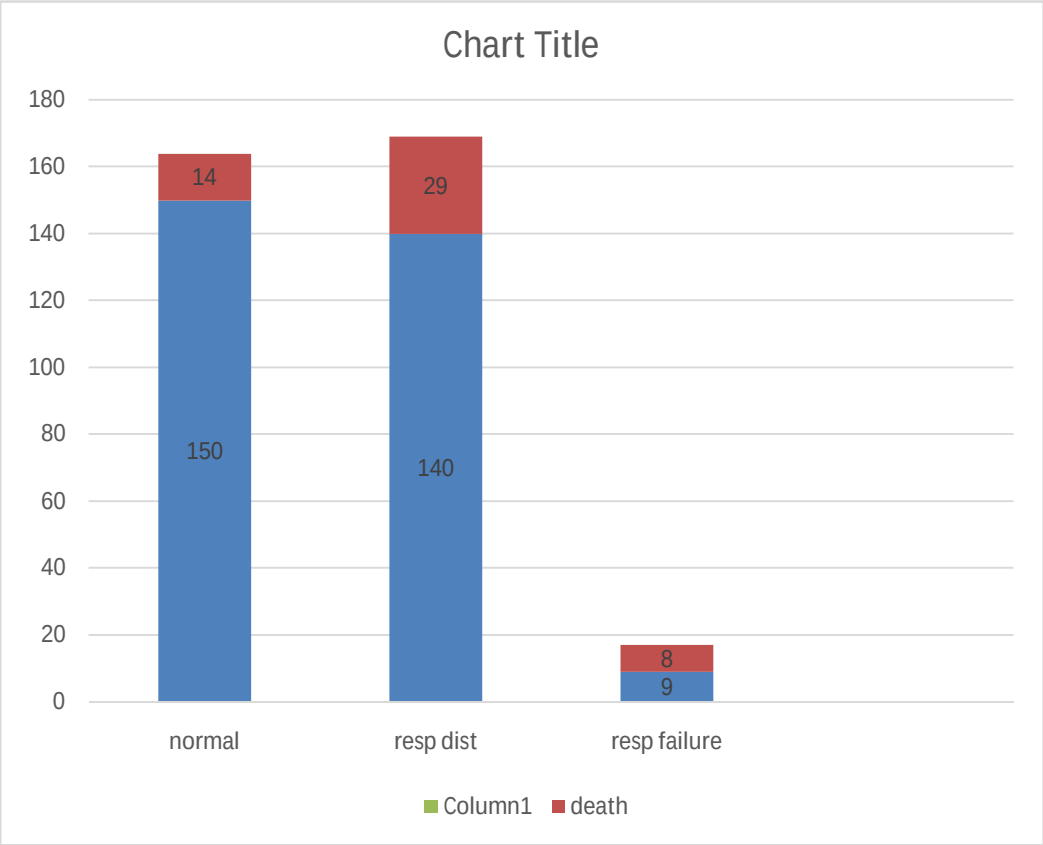
HEART RATE AND OUTCOME:

Variation in heart rate which deviates from normal cut off in the form of bradycardia and tachycardia has a significant impact in the outcome with more death in both groups with bradycardia more worst outcome as in Table 6

HEART RATE	DISCHARGE	DEATH	TOTAL	INTERPRETATION
<110 BPM	1	3	4	X^2-62.1 P value-0.001
110-160 bpm	207	7	214	
>160 bpm	91	41	132	
TOTAL	299	51	350	

RESPIRATORY EFFORT AND OUTCOME:

Increase in respiratory effort and respiratory failure is associated with poor outcome as in Fig 7

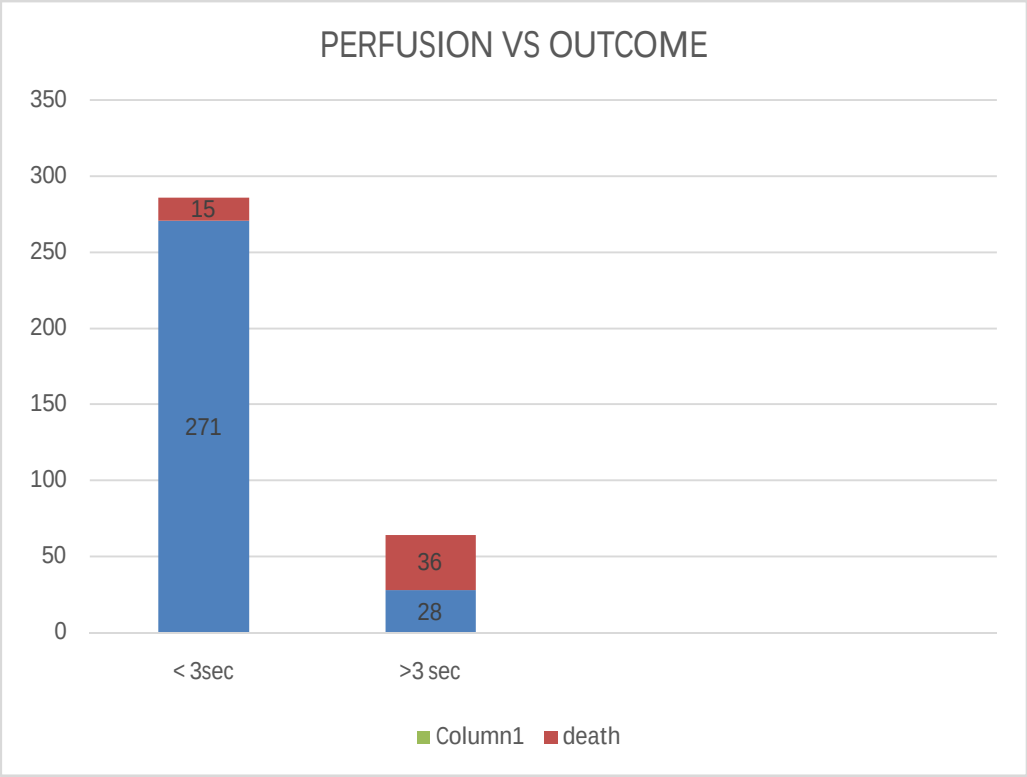


X^2-20.12

P value-0.001

PERFUSION AND OUTCOME:

Neonates with increased capillary refilling time at admission at admission is associated with poor outcome as in Fig 8

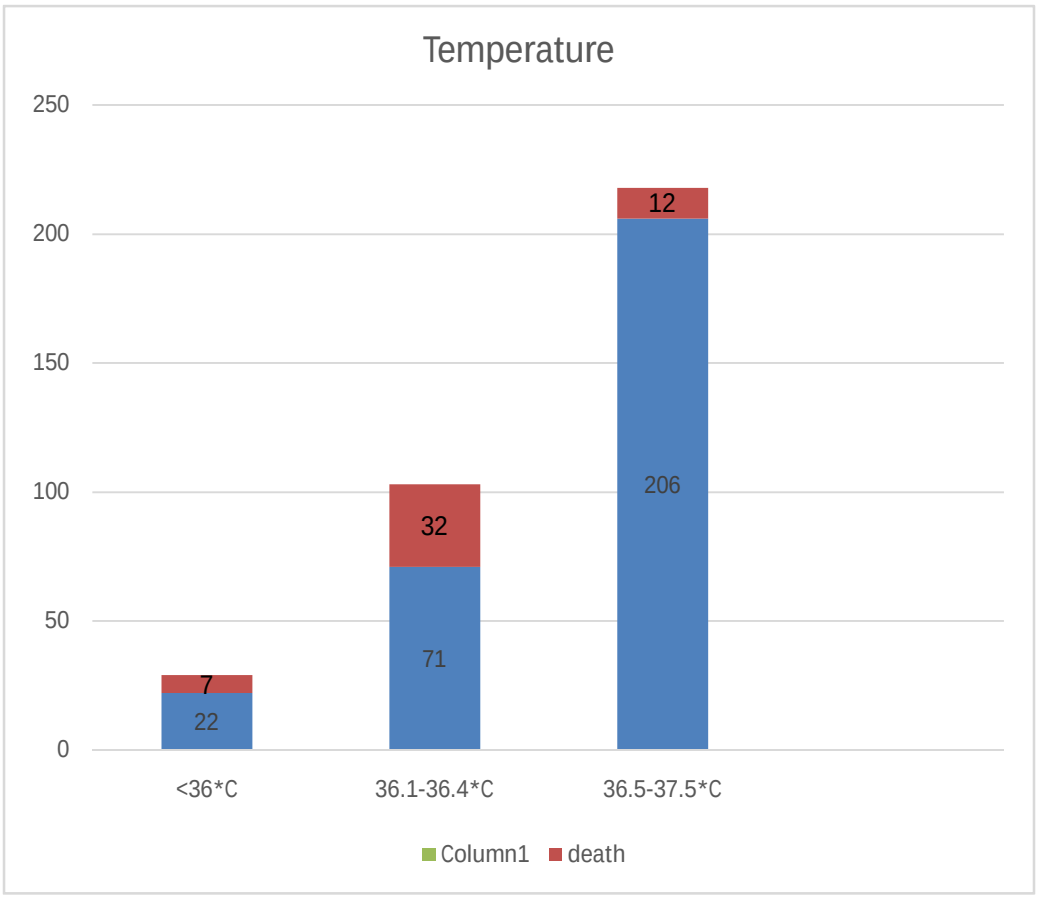


X^2-109.2

P value-0.001

TEMPERATURE AND OUTCOME:

Hypothermic neonates at arrival had worse prognosis as in Fig 9



X^2-39.04

P value-0.001.

CAPILLARY BLOOD GLUCOSE AND OUTCOME:

Neonates received with low capillary blood glucose was associated with higher mortality as in Table 7

CBG	DISCHARGE	DEATH	TOTAL	INTERPRETATION
<40 mg/dl	6	2	8	X^2-59.6 0.001
40-50 mg/dl	9	17	26	
>50 mg/dl	284	12	316	

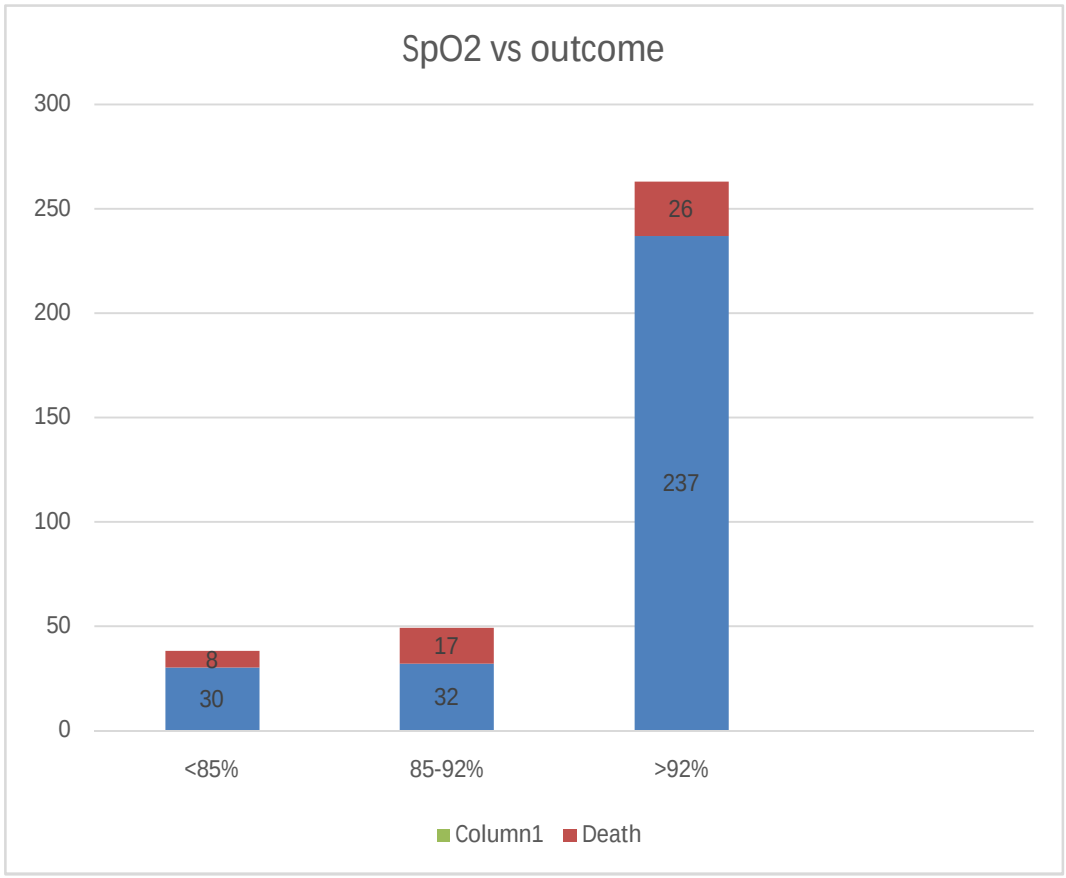
MEAN ARTERIAL PRESSURE AND OUTCOME:

Hypotension on arrival was associated with poor outcome nearly resulting in 50% mortality as seen in Table 8

MAP	Discharge	Death	Total	Interpretation
HYPOTENSION	12	11	23	X^2-21.9 P value-0.001
NO HYPOTENSION	287	40	327	
TOTAL	299	51	350	

SPO2 AND OUTCOME:

40.3% neonates succumb when the saturation was less than 92% as in Fig 10



X^2-21.8

P value-0.001

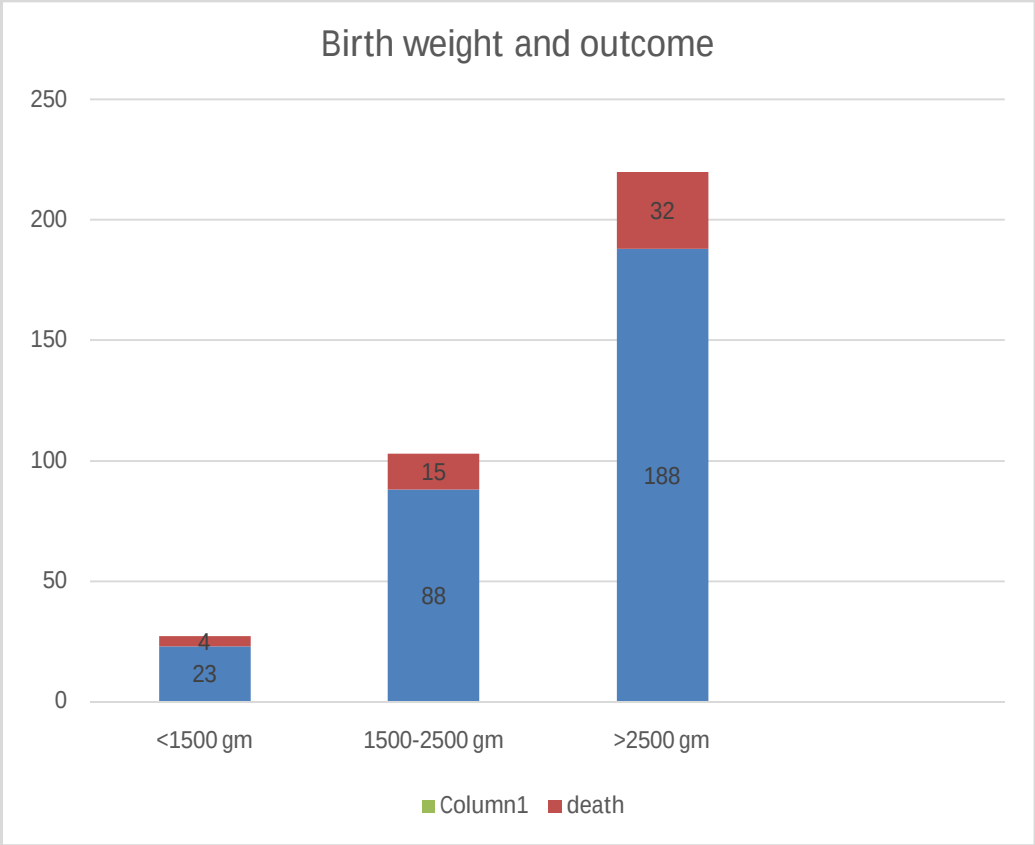
PERFUSION INDEX AND OUTCOME:

Perfusion index < 0.9 was associated with grave prognosis and poor outcome as in Table 9.

PI	**DISCHARGE**	**DEATH**	**TOTAL**	**INTERPRETATION**
<0.9	7	7	14	X^2-14. P value-0.001
>0.9	292	44	336	
TOTAL	**299**	**51**	**350**	

BIRTH WEIGHT AND OUTCOME:

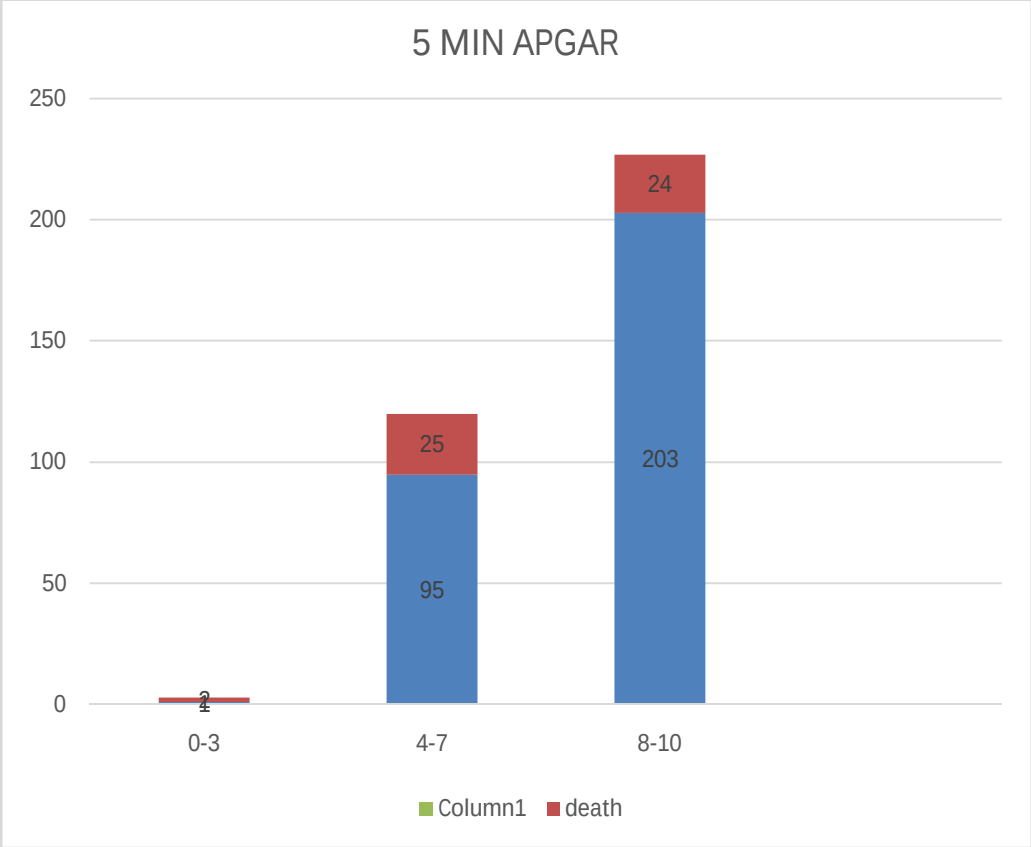
Mortality was high in very low birth weight babies. But the birth weight was not a predictor of mortality in our study which may be due to the fact that our institute being a referral institute even appropriate birth weight neonates received were also sick as in Fig 11.



X^2-0.01; P value-0.99

5 MIN APGAR AND OUTCOME:

Neonates who had low Apgar score had poor prognosis as seen in the figure mortality is 66.7% when the Apgar is <3 as in Fig 12.



X^2-13.23, P = 0.001

UNIVARIATE ANALYSIS

PARAMETERS	X^2 VALUE	P VALUE
HEART RATE	62.1	0.001
RESPIRATORY EFFORT	20.12	0.001
PERFUSION	109.2	0.001
TEMPERATURE	39.04	0.001
BLOOD GLUCOSE	59.6	0.001
PERFUSION INDEX	14	0.001
MAP	21.9	0.001
SATURATION	21.8	0.001
BIRTH WEIGHT	0.01	0.99
APGAR	13.23	0.001

Among the ten parameters except birth weight all the nine parameters seems to be significant in determining the outcome. To obtain the most significant factors among the nine parameters multiple logistic regression was performed.

MULTIPLE LOGISTIC REGRESSION:

Multiple logistic regression was used to define the most significant factors among the ten parameters so as to devise the score which can be applied for the assessment of a sick child and the need for immediate aggressive management on arrival.

Among ten parameters only five parameters emerged significant at the final step of logistic regression. The five parameters were:

1. HEART RATE
2. CAPILLARY REFILLING TIME/PERFUSION
3. TEMPERATURE
4. CAPILLARY BLOOD GLUCOSE
5. APGAR AT 5 MINUTES

Each parameter was assigned a score of 0,1,2 according to the adjusted odds ratio as given in Table 10

DEVISED SCORE:

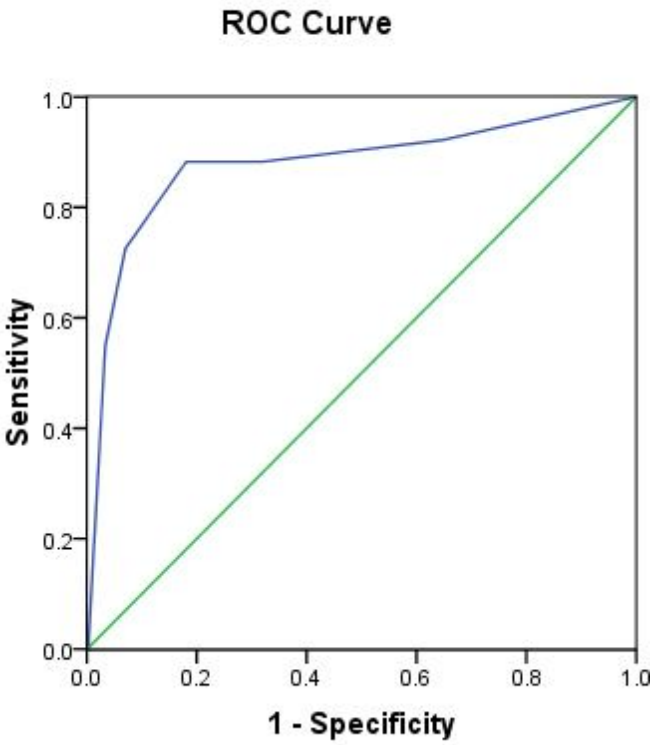
PARAMETERS	P VALUE	ADJUSTED OR	CI	SCORE
HEART RATE <110 bpm >160bpm 110-160bpm	 0.001 0.01 0.003	 20.6 5.17	 1.018-295.13 1.021-14.68 Reference	 2 1 0
PERFUSION >3sec <3sec	0.001	12.25	3.014-19.881 Reference	2 0
TEMPERATURE <36*C 36.1-36.4*C 36.5-37.5*C	 0.001 0.513 0.002	 5.55 1.576	 2.067-14.911 0.403-6.152 Reference	 2 1 0
CBG <40mgs/dl 40-50 mgs/dl >50 mgs/dl	 0.001 0.756 0.002	 19.441 0.699	 5.054-74.784 0.073-6.676 Reference	 2 1 0
APGAR 0-3 4-7 8-10	 0.008 0.712 0.048	 64.83 1.183	 2.972-1414.1 0.485-2.886 Reference	 2 1 0

After assigning the score it was applied to all 350 neonates and total score calculated for each of them. The minimum score was 0 and maximum was 10.ROC curve was constructed to find out the cut of point to predict the mortality with high sensitivity and specificity.

ROC CURVE:

ROC curve was constructed to determine the cut off with maximum sensitivity and specificity to determine mortality. The score created as above by using the parameters were applied to all the 350 neonates and was plotted in the ROC curve graph.

According to the ROC curve if the area under the curve was below 0.5 then the diagnostic test is not considered significant .Higher the curve above the diagonal and more towards the left the test is considered significant



AREA UNDER THE CURVE: 0.878

OPTIMUM CUT OFF POINT: 3

SENSITIVITY: 88.2%

SPECIFICITY: 82.8%

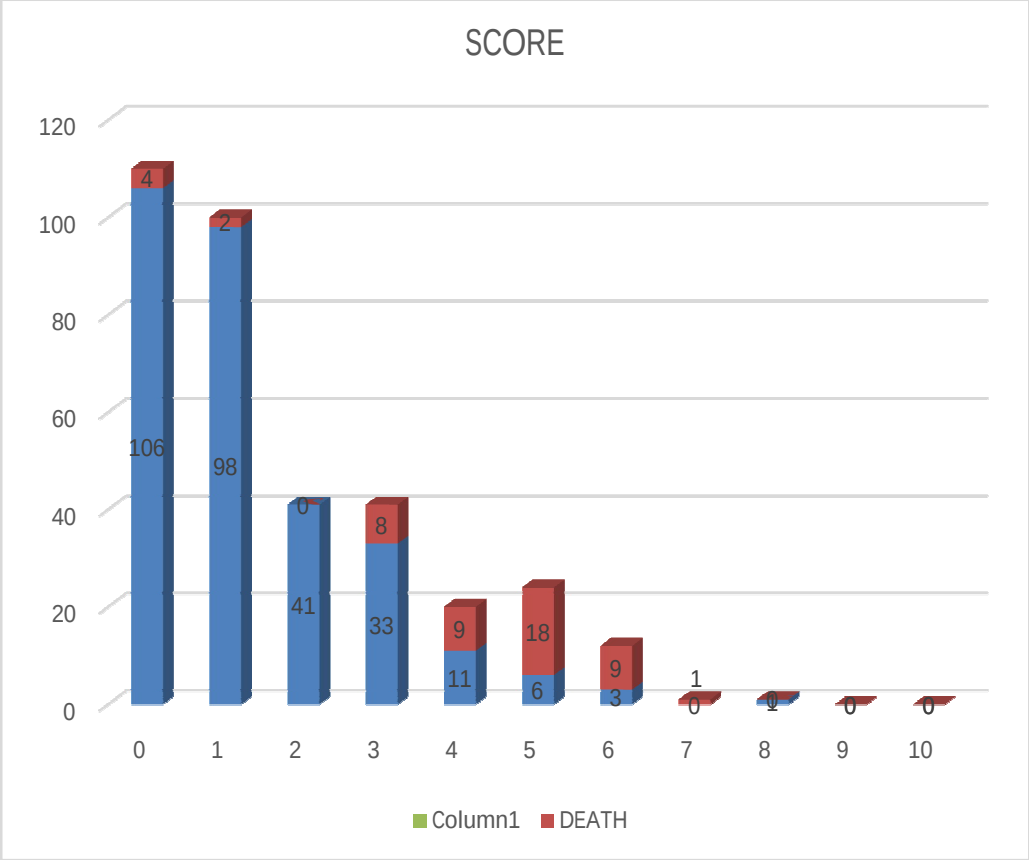
POSITIVE PREDICTIVE VALUE: 97.6%

NEGATIVE PREDICTIVE VALUE: 45.5%

Since area under the curve was 0.878 our score has higher significance in predicting the mortality. The point of maximum sensitivity and specificity could not be ascertained from our study since there was mortality seen in lower score 0 and a survivor in the higher score.

SCORE AND OUTCOME:

A score of >3 was associated with high mortality. Maximum death was seen in the neonates with the score of 5 and 6 as in Fig 13

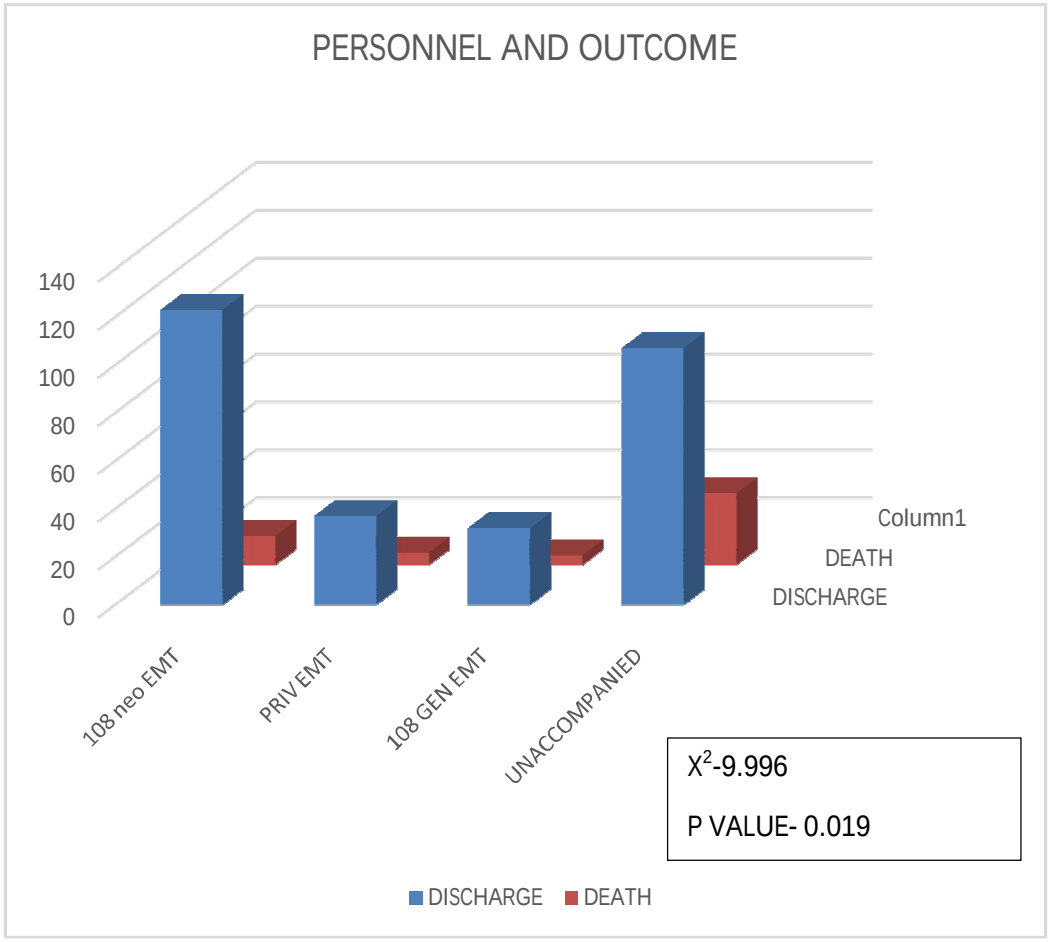


TO COMPARE THE EFFECT OF PERSONNEL ACCOMPANYING OR UNACCOMPANIED ON THE OUTCOME:

Mortality in neonates accompanied by trained personnel is less when compared to neonates brought to hospital unaccompanied and it was statistically significant as in Table 11 & Fig 14

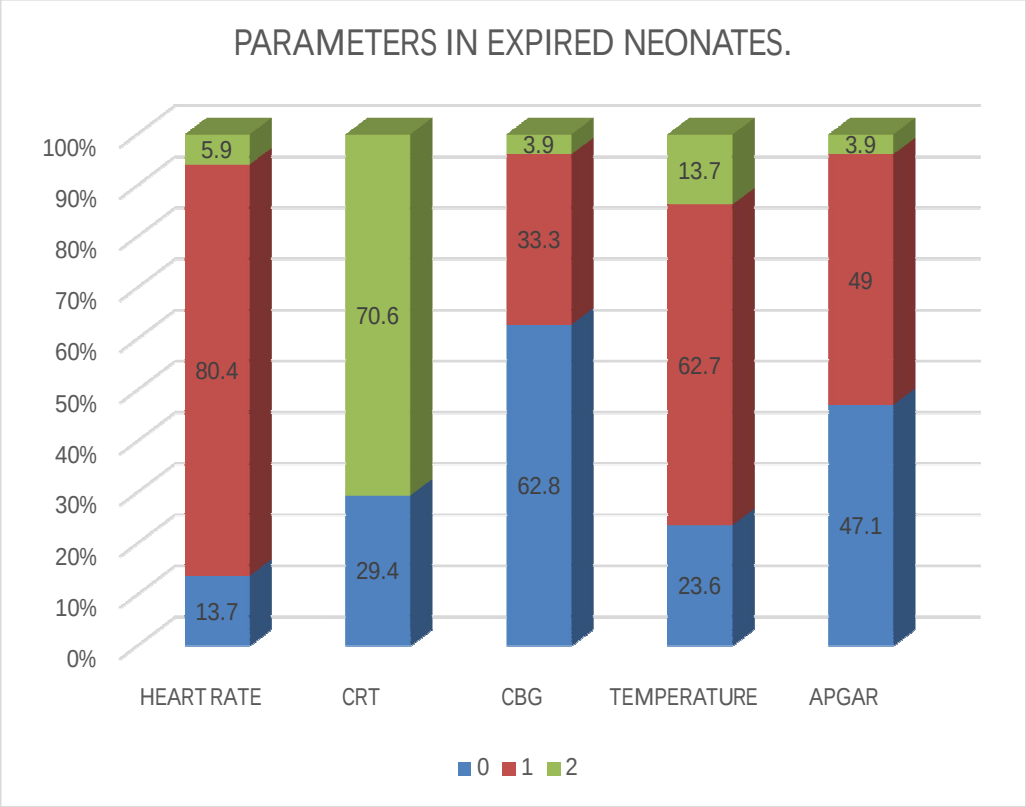
PERSONNEL	DISCHARGE	DEATH
108 Neonatal EMT	91.2%	8.8%
Private EMT	88.1%	11.9%
108 general EMT	88.9%	11.1%
Unaccompanied	78.1%	21.9%

PERSONNEL ACCOMPANIED AND OUTCOME



PARAMETERS IN THE EXPIRED NEONATES:

The common parameter abnormality noted in the expired neonates were tachycardia followed by prolonged capillary refilling time, hypothermia and least were low apgar and hypoglycaemia as in Fig 19.



Transport of the sick neonate in a well organised and safe manner is an important intervention which ultimately has a great impact in the outcome. Unfortunately the care of neonate during transport is often a neglected area in our country. Many people from the remote areas are still unaware of the benefits of safe transport of the new born. Unlike in western countries the studies in neonatal transport is very limited in India that too from the southern part of our country.

350 neonates who fulfilled the inclusion criteria were included in the study. Since our institute receives only out -born babies our study was very useful to determine the care of the neonates during transport. Before the introduction of 108 services most of the transport were by either own modes like auto, bus, train or by private ambulances.

After the introduction of 108 free ambulance services by our government the awareness has increased and now people are using the available facilities, still the awareness among people in the remote areas is lacking .

In our study among 350 neonates 58.9% were male and41.1% were female babies which was same as the ratio seen in NNPD[35](2002-2003).Term babies constitute about 70%,preterm 29.4% and post term

0.6%.This was similar to the study done by Deepak et al in South India. 62.8% neonates had birth weight >2500 grams, 27.9% had a birth weight in the range of1500-2500 grams and 7.7% neonates weighing <1500 grams.

The common indications for referral was sepsis (29.4%),asphyxia (16%),prematurity(11.1%) Neonatal hyperbilirubinemia (10.9%),seizures (9.1%) Respiratory distress syndrome (8.9%), cardiac causes (6.6%), respiratory distress in term babies (6.3%) and hypothermia (1.7%). In the study by Narang et al Respiratory distress syndrome (43%) followed by prematurity (22%) were the common indications for referral. This may be due to the fact since our hospital is an extramural referral hospital and the changing practices of antenatal steroids, early initiation of CPAP and in some SNCU surfactants are being given for the babies. In a South Indian study conducted by Rathod et al sepsis and asphyxia were the common indications for referral as same as our study which implies the need of creating awareness regarding the strict aseptic practices while handling the babies both in labour room and in newborn wards.

In our study the mode of transport in majority was by 108 neonatal ambulances (39.4%), followed by own mode of transport (33.1%),108 general ambulance (10.3%) and by private ambulances (17.1%).

Out of the 350 neonates, 39.4% neonates were accompanied by the dedicated 108 neonatal ambulance EMT, followed in frequency by 38.3% neonates were received unaccompanied,12% neonates were accompanied by private ambulance EMT, and only 10.8% were accompanied by 108 general ambulance EMT. Though 17.1% neonates were transported by private ambulance only 12% were accompanied by trained personnel remaining 5.1% neonates were received unaccompanied.

In Narang[32] et al study most common mode of transport was own/rented vehicles(41%),followed by 29.6% used public transport, only 29.6% were transported by ambulance. 15.6% neonates were accompanied by the trained personnel.

In the study conducted by Deepak et al[28] in South India most common mode of transport was private ambulance (36%) and 108 ambulance transport only 11% and only 3% neonates were transported by 108 neonatal ambulances. This shows a positive aspect of awareness among the public and this advantage should be enhanced and sustained.

Tachycardia was recorded in(37.1%), 4.9% had respiratory failure, Capillary refilling time was found to be prolonged in 18.3% neonates, 29.4% neonates were in cold stress and 8.3 % were moderately hypothermic. Hypoglycemia was recorded in 2.3 % neonates. Perfusion

index <0.9 was recorded in 4% neonates and 6.6% were hypotensive on arrival.All these were modifiable risk factors which can be averted by proper stabilisation before transport and maintaining it during the transport.

Out of 350 babies 85.4% neonates were discharged and 14.6% neonates expired. Among the expired 80.3% had tachycardia,5% had bradycardia,70.5% had prolonged capillary refilling time,13.7% had moderate hypothermia,23.5% had cold stress, only 3% had hypoglycemia on arrival.

Most common parameter affected in the expired neonates was heart rate followed by capillary refilling time which together constitute the early marker of shock, hence pre hospital initiation of fluid boluses and inotropic supports if necessary might have improved the outcome.

In a study by Manish et al and Deepak et al hypothermia(49%-cold stress,20%-hypothermic) was the most common abnormal parameter but in their study the common modes of transportation were public transport and private ambulances where the thermo neutral environment maintenance was affected and hence temperature was the most common altered parameter.

In our study hypothermia was more common in unaccompanied (29% -cold stress 8%-hypothermic) and 108 general followed by 108 neonatal ambulance and least among the neonates accompanied by private ambulance emergency technician. Hence thermo neutral environment maintenance during transport should be taken care of in future transport for better outcome. Similarly perfusion abnormality, tachycardia and hypoglycaemia were also common in the unaccompanied neonates.

The score devised by our study has only vital parameters and apgar which is easy to record and can be done anywhere even in primary health care centre and does not require sophisticated equipment except for a glucometer and the outcome of the neonate can be ascertained. The cut off point for predicting mortality with maximum sensitivity and specificity was more than 3.

Sick neonates when transported with a trained personnel had a better outcome than the neonates who were unaccompanied. Mortality was high in the neonates unaccompanied (21.9%), followed by private EMT(11.9%),108 general EMT(11.1%) and least in 108 neonatal EMT(8.8%).

This is similar to the study by Preetham kumar[34] study in southern India where they found that hypoglycaemia (16%), hypothermia (30%), hypoxia (17%) and apnea (4%) were more in those babies brought unaccompanied.

- This prospective observational study included 350 neonates .Among these 350 neonates 51(14.6%) expired.
- The common indications for referral were sepsis, hypoxic ischemic encephalopathy and prematurity.
- Asphyxia (21.43%), Respiratory distress syndrome (19.36%) and Prematurity (15.39%) were the common causes of mortality. Hypoglycaemia (33.63%) and seizures (25%) were commonly seen in the babies who succumb.
- The common modes of transport were 108 Neonatal ambulance (39.4%) followed by own modes of transport.
- 60% of neonates were accompanied by trained personnel and 40% neonates were received unaccompanied.
- Score was devised using four simple but crucial parameters which is easy to measure and manage at the referring level itself.
- High score alerts the treating paediatrician for immediate aggressive management and referral after proper stabilisation for better outcome.
- Clinical score more than 3 was associated with mortality.

- The parameter which had highest odds ratio were Apgar, heart rate variation.
- Among the neonates who succumb the common parameters altered were tachycardia, prolonged capillary refilling time followed by hypothermia, hypoglycaemia and low Apgar.
- Neonates transported by 108 and private ambulance had better outcome than by own modes of transport. The best outcome was appreciated in neonates transported by 108 neonatal ambulance.

Most common mode of transport was 108 Neonatal ambulance in our population implying the awareness among the people regarding utilising the safe and effective transport. Very few babies had received pre hospital therapy in our study emphasizing the need for the proper stabilisation before transport.

The score formulated by our study by using the four clinical parameters and Apgar can be easily applied and the outcome can be inferred even in the primary level of care. Higher the score the neonate should receive utmost care and stabilisation for better outcome.

The outcome in the neonates transported was significantly better than those neonates brought unaccompanied stressing the importance of using organised transport with the trained personnel.

The neonates accompanied by the emergency technician also had variations in the parameters highlighting the necessity for periodic assessment and training of the personnel for additional benefits in terms of enhanced outcome.

Though the sample size was large the duration of the study was short.

The vitals were recorded in the neonates only on arrival, ideally pre-transport vitals and vitals during the transport should be recorded for better assessment of the level of pre hospital stabilisation and stabilisation during transport which will be more significant.

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ABBREVIATIONS

ANNP	-	Advanced Neonatal Nurse Practitioner
CRIB	-	Clinical Risk Index for Babies
EMT	-	Emergency Technician
LBW	-	Low Birth Weight
LGA	-	Large for Gestational Age
MINT	-	The Mortality Index for Neonatal Transport
NETS	-	Newborn Emergency Transport Services
NICU	-	Neonatal Intensive Care Unit
NBSU	-	New Born Stabilisation Unit
NBCC	-	Newborn Baby Care Corner
NSS	-	Newborn Stabilisation Score
SNAPPE II	-	Score for Neonatal Acute Physiology - Perinatal Extension
SGA	-	Small for Gestational Age
TRIPS	-	Transport Risk Index of Physiological Stability
TOPS	-	Temperature, Oxygen saturation, Perfusion, Sugar

INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE, CHENNAI-3

EC Reg No.ECR/270/Inst./TN/2013
Telephone No : 044 25305301
Fax: 044 25363970

CERTIFICATE OF APPROVAL

To

Dr.V.S.Venkateswaran,
Postgraduate in Paediatrics,
Institute of Child Health,
Madras Medical College, Chennai-3.

Dear **Dr.V.S.Venkateswaran,**

The Institutional Ethics Committee of Madras Medical College, reviewed and discussed your application for approval of the proposal entitled "**Application of Clinical Score in sick neonates received at our Emergency Unit and its impact on the outcome of the neonate and to compare the effect of trained personnel accompaning the Child**" No.21042014.

The following members of Ethics Committee were present in the meeting held on 08.04.2014 conducted at Madras Medical College, Chennai-3.

1.	Dr. C.Rajendran, M.D,	-- Chairperson
2.	Prof. Kalaiselvi, M.D, Vice Principal, MMC, Ch-3	-- Member Secretary
3.	Prof. Nandhini, M.D, Inst. of Pharmacology, MMC, Ch-3	-- Member
4.	Prof.Bhavani Sankar, M.S, Prof & HOD General Surgery, MMC, Ch-3	-- Member
5.	Prof.V.Padmavathi, M.D, i/c. Director of Pathology, MMC, Ch-3	-- Member
6.	Thiru. Rameskumar Administrative Office, MMC, Ch-3.	-- Lay person
7.	Thiru. Govindasamy, B.A., B.L., Lawyer, Ch.	-- Lawyer
8.	Tmt. Arnold Saulina, MA MSW	-- Social Scientist

We approve the proposal to be conducted in its presented form.

Sd/Chairman & Other Members

The Institutional Ethics Committee expects to be informed about the progress of the study, and SAE occurring in the course of the study, any changes in the protocol and patients information / informed consent and asks to be provided a copy of the final report.

8/4/14

Member Secretary, Ethics Committee

VICE PRINCIPAL
MADRAS MEDICAL COLLEGE
CHENNAI-3.

8/4/14

DATA COLLECTION FORM

Name : **age:** **sex:** **ip/op no:**

ANTENATAL COMPLICATIONS:

GDM

PIH

SEIZURE

CARDIAC

PROM

MODE OF DELIVERY:

Spontaneous

Forceps

Vacuum

Emergency lscs

Elective lscs

Assisted breech

ACTIVE RESUSCITATION:(EVEN ONE CYCLE OF BAG AND MASK VENTILATION):

Yes

No

MATURITY:

TERM

PRETERM

POST TERM

ANTENATAL STEROIDS:

Yes

No

MODE OF TRANSPORT:

108 ambulance

Private ambulance

Own vehicle

ACCOMPANIED BY TRAINED PERSONNEL:

Yes

No

INDICATIONS FOR REFERRAL:

Asphyxia

Sepsis

Preterm/LBW

Hypoglycaemia

RDS

Seizure

Hyperbilirubinemia

Cardiac conditions

PRIOR TREATMENT DETAILS:

Thermal Control	Yes / No
Oxygen Therapy	Yes / No
Fluids for shock management	Yes / No
Inotropes	Yes / No
Dextrose	Yes / No
Intubation	Yes / No
AED	Yes / No

CLINICAL PARAMETERS:

1.Heart rate

2.Respiratory effort - normal

Tachypnea/resp distress

Apnea/resp failure

3.Perfusion (CRT) <3 Sec/> 3 sec

4.Temperature *c

5.Capillary blood glucose

6.Mean arterial pressure

7.SpO2

8.Perfusion index

9.Birth weight

10.Apgar at 5 min

name	age	sex	ip no	antenatal complications	delivery	resuscl	maturity	steroids	transport new	personnel new	indications	fluids	inotropes	dextrose	Intubated	AED	HR	RESP EFF	PERFUSION	TEMP	CBG	MAP	SPO2	PI	B.WT	APGAR	outcome	score
B/O ROOBI	10 days	2	288865	1	1	1	2	1	1	1	1	2	2	2	2	2	2	2	1	3	3	1	2	2	2	3	1	0
Vasanthi	1 day	2	288627	6	5	2	2	1	2	2	5	2	2	2	2	2	3	2	1	3	3	2	1	2	2	3	1	1
Kavitha	66 hrs	2	288683	6	1	1	2	2	1	1	2	2	2	2	2	2	3	2	1	3	2	1	2	1	2	3	1	2
gomathy	2 hrs	2	287189	6	1	2	2	1	4	4	3	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	0
kanagi	1 hr	2	288343	6	1	2	2	2	1	1	5	2	2	2	2	3	2	2	2	5	1	2	1	2	2	2	1	8
poongodi	12hrs	2	7747	6	1	2	1	2	1	1	9	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1
sobhashini	24 hrs	2	288368	6	1	1	1	2	4	4	1	2	2	2	2	2	3	2	1	3	3	1	3	2	2	3	2	3
sangeetha	1 hr	2	288407	2	1	2	2	1	1	1	3	2	2	2	2	2	3	2	1	2	3	2	3	2	2	3	1	2
chitra	9 hrs	1	288765	2	1	2	1	2	2	2	5	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	4
somathy	15days	2	286465	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	2	2	2	3	2	3	3	3	2	4
aruna	4days	1	288642	6	5	2	1	2	3	2	6	2	2	2	2	2	3	3	2	2	2	3	2	3	2	2	2	5
velvizhi	2 hrs	2	288676	6	5	2	2	1	2	3	5	2	2	2	2	2	3	2	1	3	3	2	1	2	2	3	1	1
bhavani	25hrs	1	288660	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
madhubala	16days	2	288699	6	1	2	1	2	3	3	2	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1
rajalaxmi	4hrs	1	288641	6	1	1	1	2	1	1	1	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	0
velvizhi	2h	2	288675	6	5	2	2	1	2	3	5	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	0
kuppammal	2hrs	1	8252	6	1	1	1	2	1	1	1	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	0
stellamary	7h	2	288704	6	1	2	2	2	4	4	5	2	2	2	2	2	3	2	2	2	3	1	2	2	3	2	2	5
nirosha	2h	1	288655	6	1	1	1	2	1	1	1	1	2	2	2	2	3	2	2	3	3	1	3	2	3	2	1	5
latha	31hrs	2	9214	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	2	2	2	2	3	2	2	2	2	6
ramya	25d	1	78735	6	5	2	2	2	1	1	9	2	2	2	2	2	3	2	2	2	3	2	3	2	3	3	1	4
anuradha	84hrs	2	9767	6	1	2	2	2	4	4	2	2	2	2	2	2	3	1	1	1	3	2	3	2	1	2	1	4
revathy	18d	1	9409	6	5	2	1	2	1	1	8	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	0
satya	30hrs	1	9311	6	1	2	1	2	2	3	2	2	2	2	2	2	3	1	1	2	3	2	3	2	3	2	1	3
mary preethi	76hrs	2	9330	6	1	2	1	2	1	1	7	2	2	2	2	2	3	1	1	3	2	2	3	2	3	3	1	3
sasikala	10d	2	7867	2	1	2	1	2	3	2	2	2	2	2	2	2	3	1	1	2	3	2	3	2	3	3	1	3
ramanama	33hrs	2	78166	6	1	1	1	2	1	1	1	2	2	2	2	2	3	1	1	2	3	1	3	2	3	3	1	1
sujasree	1hr	1	78162	6	5	2	2	2	2	3	5	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	2	3
uma	25d	2	78139	2	1	2	1	2	1	1	2	2	2	2	2	2	3	3	2	3	3	2	3	2	3	2	1	4
narmadha	26d	1	7850	6	1	2	1	2	3	2	2	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1
nirosha	17hrs	1	78147	6	1	2	1	2	4	4	9	2	2	2	2	2	3	2	1	1	3	2	3	2	3	3	1	3
ambarasi	1hr	1	9303	6	2	1	1	2	4	4	1	2	2	2	2	2	3	1	1	1	3	2	3	2	3	2	1	4
hemavati	47hrs	1	9788	6	5	1	1	2	2	2	3	1	2	2	2	2	3	2	2	3	3	2	1	2	2	2	1	4
parveen	36hrs	1	9370	6	1	2	1	2	2	2	2	2	2	2	2	2	3	2	2	3	3	2	1	2	2	2	1	4
sureksha	4hrs	1	9365	6	5	1	1	2	1	1	1	2	2	2	2	1	3	1	1	2	3	2	3	2	3	2	2	3
kamali	42hrs	2	78261	6	1	2	1	2	4	4	9	2	2	2	2	2	3	2	1	2	3	2	3	2	3	3	1	2
poornima	4days	1	7667	6	1	2	1	2	1	1	6	2	2	2	2	1	2	1	1	2	3	2	3	2	3	2	1	2
radha	56hrs	1	9334	6	1	2	1	2	4	4	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
anjalai	64hrs	1	9333	6	1	1	2	2	3	2	1	2	2	2	2	2	2	1	2	3	3	2	1	1	3	2	1	3
kalavani	6hrs	1	7955	6	1	1	2	1	1	1	1	2	2	2	2	2	2	3	2	2	1	2	2	2	1	2	2	7
parveen	36hrs	1	9370	6	1	2	1	2	4	4	2	2	2	2	2	2	2	1	1	3	3	2	3	1	3	2	1	1
rajaprabha	6d	1	9869	6	1	2	1	2	1	1	1	2	2	2	2	2	2	1	2	3	3	2	3	2	3	2	1	3
rekha	48hrs	1	78834	6	1	2	1	2	2	3	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
parvathi	9hrs	1	78809	6	1	2	2	1	1	1	3	2	2	2	2	1	2	3	2	2	3	2	2	1	3	2	1	3
parvathi2	9hrs	1	78810	6	1	2	2	1	4	4	3	2	2	2	2	2	3	1	2	2	3	1	1	2	1	2	2	5
fathima	2d	1	79191	6	1	2	2	1	1	1	6	2	2	2	2	1	3	1	2	2	3	2	3	2	3	2	2	4
gayathri	20d	1	78561	6	1	1	1	2	3	2	1	2	2	2	2	2	3	1	2	3	3	2	1	2	3	2	2	5
gomathy	54hrs	2	79179	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
surya	1day	1	288905	6	1	2	1	2	1	1	1	2	2	2	2	2	3	1	1	3	3	1	3	2	3	2	1	7
jagath	3days	2	287011	6	1	2	1	2	3	2	6	2	2	2	2	2	3	1	2	2	2	2	2	2	3	2	2	5
kalayarasi	4days	2	288710	6	5	2	2	1	3	2	3	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	0
ragavan	15days	1	288690	6	5	2	1	2	4	4	2	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	0
satya	84hrs	1	8297	6	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	3	1	2	3	2	3	3	1	0
jancy mary	6d	1	8299	6	1	2	1	2	3	2	6	2	2	2	2	2	3	1	2	2	2	2	3	2	3	3	2	5
poongudi	4hrs	2	8421	6	1	1	1	2	1	1	1	2	2	2	2	1	3	1	1	3	3	2	3	2	3	2	1	2
rabesh	20d	1	8406	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	0
sangam	2hrs	2	8308	6	5	2	2	1	1	1	5	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	0
nandhini	6hrs	1	8435	6	4	1	2	1	3	2	5	3	2	2	2	2	2	1	2	3	3	2	2	2	2	3	1	2
thiruselvi	3d	2	8471	6	1	2	2	2	2	2	3	2	2	2	2	2	3	1	2	2	2	2	2	1	3	2	2	3
vamsha	15days	2	8469	6	1	2	2	1	3	2	3	2	2	2	2	2	3	1	2	2	2	2	2	1	3	2	1	3
laxmi	15days	1	8481	6	1	2	1	2	4	4	8	2	2	2	2	2	2	1	2	3	3	2	3	2	2	4	1	2
ashwini	14d	1	8485	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
saizabanu	28d	1	8478	6	5	2	1	2	3	2	2	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1
tamilselvi	13d	1	8507	6	1	2	2	1	3	2	4	2	2	2	2	2	3	2	2	2	1	1	2	2	2	2	2	6
ezhilarasi	6hrs	1	9547	6	4	1	2	1	1	1	3	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	1
valleshi	6hrs	1	8464	6	5	2	2	1	3	2	2	1	2	2	2	2	3	2	1	3	3	2	3	2	1	3	1	1
mamtha	42hrs	1	8460	6	1	2	1	2	3	2	7	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	1
meenakshi	2hrs	2	8462	6	2	2	1	2	1	2	1	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	1
datchayni	3hrs	1	8556	6	5	2	1	2	1	1	5	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	0
shalini	20d	2	9885	6	1	2	1	2	3	2	6	2	2	2	2	2	3	1	1	3	3	2	2	2	2	3	1	3
suhasini	3d	2	289364	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	1
sujanthiv	21d	2	74458	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	2	1	3	2	2	2	3	3	1	5
hemavathy	4days	1	74454	6	1	1	1	2	3	2	2	2	2	2	2	2	3	2	2	2	2	2	2	1	3	3	1	6
girena	23d	2	289184	6	5	2	1	2	3	2	9	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1
muniammal	28d	1	276455	2	1	2	2	1	3	2	2	2	2	2	2	2	3	1	1	3	3	2	2	2	2	3	1	3
manjumatha	16days	1	9678	6	1	2	1	2	1	1	2	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1
adhilaxmi	3days	2	289741	1	5	2	2	1	4	4	8	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1
shenbagam	3d	2	289469	6	1	2	1	2	3	2	8	2	2	2	2	2	2	1	1	3	3	2	1	2	3	3	1	0
jitukumar	3hrs	2	74624	6	1	2	2	2	2	3	3	2	2	2	2	2	3	2	2	1	3	3	1	2	3	3	1	0
vanuna	11d	1	289772	6	4	2	2	1	4	4	3	2	2	2	2	2	3	1	2	2	3	2	1	2	1	2	1	8
varalaxmi	2hrs	1	287992	6	1	2	1	2	2	3	5	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
girana	30d	2	28008	6	5	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	2	2	3	2	3	3	1	0
manoj	1 hr	1	290002	6	1	1	1	2	1	1	1	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1
fathima	9hrs	1	290161	6	1	2	2	2	4	4	3	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	1
anitha	16days	1	290166	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	1	3	3	2	3	2	2	3	1	1
thulasi	1 day	1	290169	6	1	2	2	1	1	1	5	2	2	2	2	2	3	2	2	1	3	2	3	1	2	3	2	5
soniya	50 hrs	2	290043	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	2	2	2	3	1	0
sailaxmi	28d	1	289858	2	5	1	1	2	3	2	8	2	2	2	2	2	1	1	1	3	3	2	3	2	3	3	1	0
divyabharati	18hrs	2	290204	6	1	2	3	2	1	2	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	0
sasikala	10d	2	290182	6	1	2	1	2	1	1	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0

kokila	3hrs	1	290205	6	1	1	1	2	2	3	1	2	2	2	2	2	2	2	1	3	3	2	1	2	2	2	1	1		
aarthi	3d	2	290216	6	1	2	1	2	1	1	6	2	2	2	2	1	2	1	1	2	3	2	3	2	3	3	3	1	1	
deepa	4days	2	290209	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0	
saicharan	56hrs	1	8613	6	1	2	1	2	3	2	4	2	2	2	2	2	3	1	2	2	2	2	3	2	2	2	2	2	6	
shanthi	52hrs	2	290217	1	5	2	1	2	1	1	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	3	2	1	0	
deivanai	8d	1	75288	6	1	2	1	2	4	4	2	2	2	2	1	2	2	1	1	3	3	2	3	2	3	3	2	1	0	
laxmi	5hrs	1	290221	6	5	1	1	2	1	1	1	2	2	2	2	2	3	2	2	3	3	2	3	2	3	3	2	1	0	
santoshi	3d	2	290402	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	2	1	4	
usha nandini	3hrs	2	290328	6	1	1	1	2	1	1	1	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	2	1	0	
usha	41h	2	633831	6	5	1	2	1	1	1	1	2	2	2	2	2	3	2	2	3	3	2	2	2	2	2	2	1	4	
sangeetha	52hrs	2	8673	6	5	2	1	2	4	4	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	2	1	1	
revathy	4days	1	8629	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	2	2	3	2	3	2	3	3	2	1	4	
saraswathi	25d	1	290226	6	1	2	1	2	1	1	2	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	0		
sangeetha	2hrs	1	290311	6	1	2	2	1	1	1	3	1	2	2	2	2	3	2	2	2	3	1	2	2	1	3	1	1	4	
radika	6hrs	1	290225	6	1	2	1	2	4	4	5	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1		
sakthi	7d	2	290635	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0		
sushitha	8d	2	290627	6	1	2	1	2	1	1	1	2	2	2	1	2	3	3	2	2	3	1	3	2	2	2	2	2	5	
selvanayagi	4hrs	2	290625	6	5	1	2	1	2	3	1	2	2	2	2	2	2	1	3	3	2	3	2	3	3	3	1	1		
sayshree	23d	2	290643	6	1	2	1	2	3	2	2	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1		
usha	37hrs	2	290607	6	1	2	1	2	2	3	8	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1		
vinitha	10d	2	290603	6	5	2	1	2	4	4	5	2	2	2	2	2	3	1	1	3	3	2	3	2	2	3	1	0		
nirmala	26d	2	8712	6	5	1	1	2	1	1	1	2	2	2	2	2	3	2	2	3	3	2	1	2	2	3	1	1	8	
bharati	54hrs	1	8743	6	1	1	1	2	2	3	6	2	2	2	1	1	2	3	2	2	3	1	1	2	2	3	2	2	4	
vijayalaxmi	72hrs	1	8930	6	5	2	1	2	1	1	7	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	2	1	3	
bhuvaneswari	39hrs	1	290331	6	1	2	1	2	1	1	2	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	0		
dharun	20d	1	290293	6	1	2	1	2	3	2	2	2	2	2	2	2	2	3	1	3	3	2	3	2	3	3	1	0		
paramesvari	3hrs	1	290847	6	5	2	2	1	1	1	3	2	2	2	2	2	2	1	1	3	3	2	2	2	3	3	1	0		
vinitha	4days	2	290934	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	3	3	3	1	0		
goongodi	10d	1	290876	6	5	2	2	1	4	4	5	2	2	2	2	1	2	3	2	1	1	2	1	2	1	3	1	3		
thadimi	2hrs	1	290924	6	1	1	1	2	1	1	1	2	2	2	2	2	2	2	1	3	3	2	3	2	3	2	1	1		
lalitha	8d	1	290657	6	1	2	1	2	1	1	2	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1		
sathiya	4days	1	290655	6	1	2	1	2	5	2	8	2	2	2	2	2	3	2	2	2	2	1	2	3	3	3	2	5		
pari	13d	2	290956	6	1	2	2	1	1	1	2	2	2	2	2	2	2	2	1	2	3	2	1	3	1	1	1	1		
saharani	15days	1	290992	6	1	2	2	1	1	1	6	2	2	2	1	2	2	3	1	3	3	1	3	2	1	2	1	1		
logeswari	4days	1	290897	6	1	1	1	2	3	2	6	2	2	2	2	2	2	3	1	3	3	1	3	2	1	2	1	1		
deepa	2hrs	1	8938	6	1	2	2	1	1	1	5	2	2	2	2	1	2	3	2	3	3	2	3	2	3	3	1	1		
jeeva	30d	1	8934	6	1	2	2	1	4	4	5	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	1		
jeeva2	30d	1	8933	6	1	2	2	1	4	4	5	2	2	2	2	2	3	1	1	3	3	1	3	2	1	2	1	1		
anitha	12hrs	1	8922	6	1	2	1	2	1	1	5	2	2	2	2	2	2	1	1	3	3	2	3	2	1	2	1	2		
lalitha	1hr	2	291018	6	1	2	2	1	3	2	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0		
suganya	2hrs	1	290122	6	1	1	1	2	1	1	1	2	2	2	2	2	3	2	2	1	3	1	2	2	3	2	2	6		
chandra	3hrs	1	291053	6	1	2	2	1	1	1	3	2	2	2	2	2	2	2	1	3	3	2	3	2	3	2	1	1		
mohanamma	4days	1	291057	6	1	2	1	2	2	3	5	2	2	2	1	2	3	2	1	3	2	2	2	2	3	2	2	2		
saharani	15days	1	290992	6	1	2	2	1	1	1	6	2	2	2	1	1	3	2	1	3	3	2	3	2	1	2	1	1		
vaishala	19d	2	291028	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	1	3	2	3	2	1	1		
anitha	5hrs	2	291614	6	5	2	2	2	4	4	5	2	2	2	2	2	3	2	1	3	3	2	3	2	2	2	1	2		
dhanalaxmi	2 hrs	1	291594	6	1	2	1	2	1	1	5	2	2	2	2	2	3	2	1	3	3	2	3	2	3	2	1	2		
kowsalya	5hrs	1	291597	6	1	2	1	2	3	2	5	2	2	2	2	2	2	2	1	3	3	2	2	2	3	3	1	0		
nandhini	17hrs	2	8952	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	1		
bhuvaneswari	2hrs	1	8956	6	5	2	1	2	3	2	5	2	2	2	2	2	2	1	1	3	3	2	2	2	2	2	1	1		
kavitha	55hrs	1	291599	6	1	2	1	2	3	2	9	2	2	2	2	2	3	1	1	3	3	2	2	2	3	2	1	1		
kamatchi	3d	1	291739	6	1	2	2	1	2	2	3	2	2	2	2	2	3	2	2	3	2	3	2	3	2	2	5			
gayathri	6d	2	291044	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	0			
lakshmi	2hrs	2	291692	6	1	2	1	2	1	1	1	2	2	2	2	2	3	2	2	3	3	2	2	2	2	3	1			
jayanthi	4days	2	291628	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1			
pushpa	26hrs	1	291685	6	1	1	1	2	2	3	1	2	2	2	2	2	3	2	1	3	3	2	1	2	3	2	2			
gomathi	8days	1	9018	6	1	2	1	2	2	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0		
sharmila	3hrs	1	9013	6	5	2	2	1	1	1	3	2	2	2	2	2	2	2	1	3	3	2	2	2	2	2	1	1		
jayalaxmi	3d	1	288905	6	1	2	1	2	2	2	4	2	2	2	1	2	2	2	1	3	1	2	3	2	3	3	1	2		
rajini	8d	1	79209	2	1	2	1	2	3	2	2	2	2	2	2	2	3	2	2	2	3	2	3	2	3	3	2	4		
sangeetha	5d	1	79214	6	4	2	1	2	1	1	7	2	2	2	2	2	3	1	1	3	3	2	2	2	3	3	1	1		
archana	4days	2	79625	6	4	2	2	1	1	1	3	2	2	2	2	2	3	2	1	2	3	2	3	3	3	3	1	1		
prema	3d	1	79046	6	1	2	1	2	2	3	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	2	1	2		
parvathi	9hrs	1	9289	6	1	2	1	2	4	4	6	2	2	2	2	2	2	2	1	2	3	2	3	2	3	2	1	1		
helen	70hrs	1	79337	6	1	2	2	2	1	2	7	2	2	2	2	2	3	1	1	2	3	2	3	2	2	3	1	1		
jayalaxmi	1hr	2	79655	6	1	1	1	2	1	1	1	2	2	2	2	2	3	1	1	3	3	2	2	2	3	3	1	0		
anarachel	42hrs	2	79658	1	5	1	1	2	3	2	6	2	2	2	2	2	3	2	1	2	3	2	2	1	3	2	1	3		
nila	23d	2	79705	6	1	2	1	2	3	2	7	2	2	2	2	2	3	2	2	2	3	2	3	2	3	3	1	2		
shanmuga	4days	1	79780	6	1	2	1	2	3	2	2	2	2	2	2	2	3	1	1	2	3	2	3	2	3	3	1	2		
anitha	11d	1	8767	1	4	2	2	1	2	3	8	2	2	2	2	2	2	1	1	2	3	2	2	2	3	2	1	1		
geetha	4days	2	80267	6	5	2	1	2	2	3	7	2	2	2	2	2	3	1	1	2	3	2	3	2	2	1	1	3		
lavanya	8d	1	9383	6	1	2	1	2	3	3	9	2	2	2	2	2	3	2	2	3	3	2	3	2	3	3	1	3		
krishnae	15days	1	9552	6	5	2	1	2	3	2	2	2	2	2	2	2	1	3	2	1	3	1	1	2	3	3	2	6		
maheshwari	2hrs	1	9554	6	1	2	2	1	1	1	3	2	2	1	2	2	1	1	1	2	3	2	3	2	1	3	1	3		
fathima	22d	1	80320	6	4	1	2	1	4	4	1	2	2	2	1	2	2	1	1	2	3	2	3	2	2	2	1	2		
nirmala	42hrs	1	80299	6	5	1	1	2	1	1	1	2	2	2	1	2	3	1	1	2	3	2	2	2	2	3	1	3		
kanaga	25d	2	80320	6	1	2	1	2	2	2	2	2	2	2	2	2	2	1	2	3	2	3	2	3	3	1	2			
madhura	6hrs	2	80346	6	1	2	2	1	1	1	3	2	2	2	2	2	2	2	1	3	3	2	3	2	3	2	1	3		
shabana	53hrs	1	80582	6	1	2	1	2	2	3	7	2	2	2	2	2	2	1	1	3	3	2	3	2	1	2	1	1		
pavithra	9days	2	9566	6	5	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	1		
sangeetha	2hrs	2	9652	6	1	2	2	1	1	1	3	2	2	2	2	2	2	1	2	3	2	2	2	2	3	2	1	5		
vennila	5d	1	80340	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	1	2	1	1		
shaila	3hrs	2	80978	6	1	2	2	1	1	1	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0		
brittomary	2hrs	2	80972	6	1	2	2	1	4	4	3	2	2	2	2	2	3	2	1	2	3	2	3	2	3	3	1	1		
ramayee	6hrs	1	9800	6	1	2	1	2	1	1	2	2	2	2	2	2	3	1	1	2	3	2	3	2	3	3	1	1		
sulaiman	42hrs	1	9647	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	2	1		
vidya	4days	2	9657	6	1	2	1	2	1	1	6	2	2	2	2	1	2	2	1	3	2	2	3	2	3	3	1	1		
priya	1hr	1	81001	5	5	2	2	1	2	2	3	2	2	2	2	2	3	2	1	3	3	2	3	2	2	3	1	1		
priya	3hrs	2	80998	6	1	2	2	1	1	1	3	2	2	2	2	2	2	2	1	3	3	2	1	2	2	3	1	1		
divya	30mn	2	81004	6	1	1	1	2	1	1	1	2	2	2	2	2	3	1	1	2	3	2	3	2	2	3	1	0		
muthuvalli	25d	2	81015	6	1	2	2	1	3	2	2	2	2	2	2	2	3	1	1	2	3	2	3	2	2	2	1	3		
sankari	23d	2	9898	6	5	2	1	2	3	2	2	2	2	2	2	2	3	1	2	3	3	2	3	2	2	3	1	3		
priya	9hrs	1	81008	6	1	2	2	1	1	1	3	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	1	3		

sravani	8hrs	2	9908	6	2	1	1	2	2	2	3	2	2	2	2	2	3	2	2	2	3	2	3	2	3	2	2	5
maragadam	12hrs	1	9908	6	4	1	1	2	2	3	1	2	2	2	2	2	3	2	1	2	3	2	3	2	3	2	2	3
sahitha	25d	2	81284	6	1	2	1	2	3	2	8	2	2	2	2	2	3	1	1	3	3	2	1	2	3	3	1	0
sukumar	25d	1	8433	6	1	2	1	2	3	2	8	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	1	1
velrizhi	25d	2	81348	1	5	1	2	1	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	2	2	1	1
malarvizhi	26d	1	9950	6	1	2	1	2	3	2	2	2	2	2	2	2	2	2	1	2	3	2	2	2	3	3	1	2
sobana	50hrs	1	81688	6	5	2	1	2	1	1	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	1
aramia	2hrs	1	81775	6	1	1	1	2	2	3	1	1	2	2	1	2	2	2	1	2	3	2	3	2	3	2	1	2
mohanapriya	33hrs	1	81771	1	1	1	1	2	2	3	9	2	2	2	1	2	2	1	1	3	3	2	3	2	3	3	1	0
mallika	32hrs	1	9956	6	1	1	1	2	2	3	1	2	2	2	2	2	2	2	1	2	3	2	3	2	3	2	1	2
ishwarya	13d	2	9953	6	5	2	1	2	2	3	2	2	2	2	2	2	3	2	1	2	3	2	3	2	2	2	1	3
mohanasundari	40hrs	2	81349	6	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	1	1
muniammal	5hrs	1	81791	6	1	2	2	1	1	1	3	2	2	2	2	2	2	2	1	2	3	2	3	2	2	2	1	2
safia	8d	2	81789	6	1	1	1	2	3	2	1	2	2	2	2	2	3	2	1	2	3	2	3	2	2	2	2	5
punitha	16days	1	81790	6	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	1	1
jothi	5hrs	1	81778	6	5	2	2	1	2	3	8	2	1	2	1	2	3	3	2	3	3	2	3	2	2	2	1	4
manju	6d	2	81773	6	1	2	1	2	1	3	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
usha	12d	2	81811	6	1	2	1	2	2	1	6	2	2	2	2	1	3	1	1	2	3	2	3	2	3	2	1	3
somadevi	4days	1	8629	6	1	2	1	2	2	3	1	2	2	2	1	2	3	1	2	2	3	2	3	2	3	2	1	5
lalitha	10d	2	81627	6	1	2	2	1	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	0
manjula	3hrs	1	82099	6	5	2	1	2	1	1	2	2	2	2	2	2	3	2	2	3	3	2	1	2	2	2	1	4
manju	4hrs	1	82107	6	1	2	2	1	1	1	3	2	2	2	2	2	2	2	1	3	3	2	3	2	2	2	1	1
buela	24d	1	10060	2	1	2	1	2	2	3	2	2	2	2	2	2	2	1	1	2	3	2	3	2	3	3	1	1
padmavathy	3d	1	82343	6	1	2	1	2	1	1	7	2	2	2	2	2	2	1	1	2	3	2	3	2	3	2	1	2
ayan	26d	1	82434	6	1	2	1	2	2	3	2	2	2	2	2	2	2	2	1	2	3	2	3	2	3	3	1	1
selvakumar	3hrs	1	10027	3	1	2	2	1	1	1	3	2	2	2	2	2	3	2	1	2	3	2	3	2	2	3	1	1
rukmani	6hrs	1	10037	6	1	2	2	1	4	4	3	2	2	2	2	2	3	2	1	2	3	2	3	2	2	2	1	2
kasthuri	30d	1	10056	6	1	2	1	2	1	2	2	2	2	2	2	2	2	2	1	1	3	2	3	2	2	2	1	3
umarani	5d	2	82241	6	1	1	1	2	3	2	2	2	2	2	2	2	3	2	1	1	2	2	3	2	3	3	2	4
vasantha kumar	22d	2	82305	6	1	1	1	2	2	3	1	2	2	2	2	2	3	1	2	3	3	2	3	2	3	3	2	3
amirtha	3d	1	82321	6	1	2	1	2	1	1	2	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	1	1
vigneshwari	10d	1	82348	6	1	2	1	2	3	2	2	2	2	2	2	2	3	2	1	2	3	2	3	2	3	3	1	2
mariyammal	15 hrs	2	10064	6	1	1	1	2	1	1	2	2	2	2	2	2	3	2	1	2	3	2	3	2	3	2	1	3
revathi	10d	2	8125	6	1	2	1	2	3	2	2	2	2	2	2	2	3	1	2	1	3	2	3	2	3	2	1	6
suvalaxmi	29d	2	82566	6	5	2	2	2	2	3	2	2	2	2	2	2	2	2	1	3	3	2	3	2	2	2	1	1
praveena	14hrs	2	10123	6	5	2	2	1	2	2	5	2	2	2	2	2	3	2	1	2	3	2	3	2	1	3	1	2
dheena	25d	1	10109	6	1	2	1	2	1	2	2	2	2	2	2	2	3	2	1	2	3	1	3	2	3	2	1	3
bhuvana	26d	2	10102	6	1	2	1	2	1	1	4	2	2	1	2	2	3	1	1	2	1	2	3	2	3	2	1	5
rajkumar	2hrs	1	82654	6	1	1	1	2	4	4	1	2	2	2	1	3	2	1	1	3	3	2	4	2	4	2	1	1
subha	3hrs	1	82358	6	1	1	1	2	1	1	1	2	2	2	2	2	3	3	1	2	2	1	2	2	3	1	2	5
gowri	4days	1	82353	6	1	2	1	2	2	3	7	2	2	2	2	2	2	2	1	2	3	2	3	2	3	2	1	2
pavithra	8hrs	2	10540	6	1	1	1	1	1	1	1	2	2	2	1	2	2	1	1	2	3	2	3	2	3	3	1	1
shameen	42hrs	1	10539	6	1	2	1	2	1	1	6	2	2	2	2	1	2	3	2	2	3	2	2	2	3	2	1	4
suganthy	48hrs	2	83496	6	5	2	1	2	4	4	8	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	0
muniammal	28d	1	276655	3	1	2	2	1	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
ezhilarasi	3d	2	39660	6	1	2	1	2	1	1	2	2	2	2	2	2	2	2	1	2	3	2	2	2	2	2	1	2
sabitha	22h	1	10980	6	1	1	1	2	2	3	1	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
mahalakshmi	6d	1	10975	6	1	2	1	2	3	2	2	2	2	2	3	2	2	1	1	2	2	2	1	1	3	2	2	3
viji	10hr	2	10993	6	1	2	1	2	4	4	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
sangeetha	4hrs	1	17001	6	1	2	2	1	1	1	5	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	1
sandhya	4hrs	1	11003	6	4	1	2	2	2	3	1	2	2	2	2	2	3	2	1	3	3	2	2	2	3	3	1	1
poongodi	3hrs	1	11004	6	1	2	1	2	1	1	1	2	2	2	2	1	2	2	1	3	3	2	3	2	2	2	1	1
priya	4hrs	2	84814	6	1	2	2	1	2	2	2	2	2	2	2	2	2	2	1	3	3	2	2	2	3	2	1	1
dillirani	3d	2	299608	6	5	2	1	2	1	1	7	2	2	2	2	2	2	2	1	3	3	2	3	2	2	3	1	0
malathy	3hrs	2	11601	6	1	2	1	2	3	2	9	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	1	0
nasiya	10d	1	11605	6	1	2	1	2	1	2	6	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	0
selammal	17d	1	11621	6	1	2	1	2	2	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
bharathi	4hrs	1	11610	6	1	2	1	2	3	2	9	2	2	2	2	2	3	2	2	3	2	2	2	2	3	3	2	4
hemalatha	10hr	1	11602	6	4	2	1	2	2	3	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
radha	8h	1	16004	6	4	2	2	1	1	1	5	2	2	2	2	2	2	2	1	3	2	2	3	2	3	3	1	1
deepika	6d	1	637309	6	5	2	1	2	1	1	7	2	2	2	2	2	2	2	1	3	3	2	2	2	2	3	1	0
priya	7d	2	14002	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
pooja	5d	1	300246	6	5	2	2	2	2	1	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
vasanthi	5hrs	1	18009	6	1	2	2	1	1	1	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
rajaveni	3hrs	2	300276	6	1	1	2	1	1	1	1	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	2	0
sara	20d	2	300282	6	1	2	2	1	3	1	2	2	2	2	2	2	2	2	1	3	3	2	3	2	2	3	1	0
rekha	8d	2	11954	6	1	2	1	2	2	3	7	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	1	0
nooruhan	4hrs	1	85863	6	5	2	1	2	3	2	2	2	2	2	2	2	3	2	1	3	3	2	1	2	2	3	1	0
vasanthi	5hrs	1	85831	6	1	2	2	1	1	1	3	2	2	2	2	2	3	2	2	2	2	2	2	2	3	3	2	5
sara	22h	2	85754	6	1	2	2	1	4	4	3	2	2	2	2	2	2	2	1	3	3	2	2	2	3	3	1	1
usha	5hrs	1	81007	6	1	2	2	2	3	2	8	2	2	2	2	2	2	2	1	3	3	2	1	2	2	3	1	3
pradeepa	22h	2	300571	6	4	2	2	1	2	3	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	1	0
gomathy	4days	1	300561	6	1	1	1	2	1	1	1	2	2	2	2	2	3	2	2	1	3	2	3	2	3	3	2	0
sripathi	4hrs	1	300605	6	5	2	2	1	1	1	5	2	2	2	2	2	3	2	2	2	3	2	1	2	2	3	1	6
menaga	1hr	2	300754	6	1	2	1	2	4	4	9	2	2	2	2	2	2	2	1	3	3	2	2	2	3	3	1	0
sanjana	15days	2	300928	6	6	2	1	2	3	2	6	2	2	2	2	2	3	2	1	3	3	2	1	2	3	3	1	1

vithish	24days	1	87266	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	3	2	1	1	
rajasuda	23d	1	801073	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	3	3	1	0	
niranjana	25d	2	900587	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	2	3	3	1	0	
priyadarsini	4days	1	837455	6	1	2	1	2	1	3	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
geetha	29d	2	837621	6	1	2	2	1	3	2	7	2	2	2	2	2	2	1	1	3	1	2	3	2	3	3	3	1	2		
dinesh	25d	1	83726	6	1	2	1	2	3	2	9	2	2	2	2	2	3	1	1	3	3	2	3	2	3	3	3	1	1		
sudha	8d	2	837260	1	4	2	1	2	3	3	8	2	2	2	2	1	3	2	1	3	3	2	3	2	3	3	3	1	1		
menaga	1d	2	837205	6	1	2	1	2	1	3	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
sathiarani	4days	1	837369	1	4	2	2	1	2	3	5	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
lakshmi	7d	2	837550	6	1	2	1	2	1	3	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
mariya	4days	2	837640	6	1	2	1	2	1	3	6	2	2	2	2	1	2	1	1	3	3	2	3	2	3	3	3	1	0		
poongodi	10d	1	837836	6	1	1	1	2	2	2	1	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
divya	28d	1	837603	6	1	2	1	2	3	1	3	2	2	2	2	2	2	1	1	3	5	2	3	2	2	2	2	1	1		
lalli	1d	1	837985	6	1	2	2	1	1	3	3	2	2	2	2	2	3	1	1	3	5	2	3	2	3	3	3	1	1		
sandya	3d	2	837980	6	1	2	1	2	4	4	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
solaiyammal	15days	2	837971	2	3	2	3	2	3	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
manju	8hrs	1	837977	6	1	1	1	2	1	1	9	2	2	2	2	2	2	1	1	3	2	2	3	2	2	2	2	1	2		
uma	15days	1	838057	6	3	2	3	2	3	1	2	3	2	2	2	2	2	1	1	3	3	2	3	2	3	2	1	1	1		
jayapriya	25d	1	838024	6	3	2	2	1	3	2	2	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	3	1	1		
saranya	3hrs	1	102248	6	2	2	2	1	1	1	4	2	2	2	2	2	2	1	1	3	1	2	3	2	2	3	3	1	2		
bhavani	22d	2	838117	6	2	2	2	1	1	1	7	2	2	2	2	2	2	1	1	3	1	2	3	2	2	3	3	1	2		
praveena	6hrs	2	838249	6	1	1	1	2	3	2	1	2	1	2	1	2	2	2	1	3	3	2	3	2	3	3	3	1	0		
sathya	7d	1	838230	5	4	2	2	1	1	1	7	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	3	1	0		
shanthi	3d	1	838237	6	1	2	1	2	1	1	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	2		
samundeswari	19d	2	838405	6	5	2	2	2	2	3	6	2	2	2	2	1	3	3	1	3	3	2	2	2	3	3	1	1	1		
princy stella	1d	2	838329	6	5	2	2	1	1	1	5	2	2	2	2	2	3	2	2	3	1	2	3	2	2	2	2	2	5		
saranya	5d	2	838463	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
pushpa	2d	2	838341	6	5	2	1	2	2	3	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
jayapriya	25d	1	838054	6	2	2	1	2	3	2	2	2	2	2	2	2	2	2	1	3	3	2	3	2	3	3	3	1	0		
gowri	3d	2	838464	6	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	1	3	3	3	1	0		
shanthi	3d	1	838227	6	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
indra	23d	2	838352	6	1	2	1	2	1	1	2	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	3	1	0		
vimala	22d	2	838222	6	3	2	2	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
maharasi	30d	2	837203	6	5	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
jeevitha	28d	2	838413	6	3	2	1	2	3	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
sanjay	16d	1	838199	6	2	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
regina	13d	1	838253	6	2	2	1	3	2	3	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
kala	1d	1	838420	6	1	1	2	1	1	1	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
Sangeetha	22d	1	88557	2	3	2	1	3	2	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	2	2	2	1	1		
selvi	2.5hrs	1	88653	2	1	1	2	1	2	3	3	1	2	2	1	2	2	1	1	3	3	2	3	2	2	2	2	1	0		
dhanalaxmi	18d	1	88565	1	3	2	2	1	3	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	3		
mitesh	16days	1	88617	2	1	2	2	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	3		
sahitha	4days	2	88765	6	1	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
subbulakshmi	3hrs	2	88716	8	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
kalayarasi	6d	1	88708	6	1	2	1	2	1	3	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
lekshmi	7hrs	1	11858	8	1	2	2	1	4	4	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
rekha	45hrs	1	11843	8	1	2	1	2	1	3	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
deena	4days	1	839926	8	1	1	1	2	4	4	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
hemlatha	18d	1	839102	8	1	2	2	1	3	1	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
anitha	25d	1	839211	8	1	1	2	1	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	3	1	0		
esther rani	8d	1	838654	6	4	2	1	2	1	1	6	2	2	2	2	1	2	2	1	3	3	2	3	2	2	2	2	1	3		
mohan	6d	2	838978	6	4	2	2	1	1	1	6	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	3	1	0		
sasikala	1d	2	838646	5	1	2	2	1	3	2	3	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	3	1	0		
mahiyabegum	1d	2	839139	8	4	2	2	1	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
sangeetha	21d	1	839109	6	1	2	1	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
kala	1d	1	839048	8	1	2	1	2	3	2	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
datchayini	1d	2	839023	6	1	1	1	2	1	3	1	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
parveen	11d	1	839057	1	5	2	1	2	2	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
safia begum	1d	2	839045	5	4	2	2	1	2	3	9	2	2	2	2	2	2	1	1	3	3	2	3	2	2	3	3	1	0		
sasikala	2d	1	839093	6	1	1	1	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
sahitha	9d	2	838709	6	1	2	1	2	3	2	8	2	2	2	2	2	3	2	2	3	3	2	3	2	3	3	3	1	1		
divagaran	15d	1	838795	6	5	2	1	2	1	3	2	2	2	2	2	2	2	1	1	3	3	1	2	1	3	3	3	1	4		
swethi	17d	2	839043	6	5	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
beebijohn	14d	1	839021	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
chandralekha	4days	1	839077	6	1	2	1	2	3	2	8	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
malai	9days	1	86978	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
geetha	18d	1	13987	6	5	2	1	2	3	2	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
maragadam	5d	1	98312	6	1	2	1	2	1	1	6	2	2	2	2	2	3	2	1	3	3	2	2	2	3	3	3	1	1		
nandari	4hrs	1	99219	6	4	2	1	1	1	1	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	2		
pooja	27d	2	99933	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
sasikala	2hrs	2	11961	6	5	2	1	2	1	1	9	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
meena	6d	3	11964	2	1	2	1	2	4	4	9	2	2	2	2	2	2	1	1	3	3	2	2	2	3	3	3	1	1		
fathima	6hrs	2	89963	6	1	2	1	2	3	2	7	2	2	2	2	1	2	1	1	3	3	2	2	2	3	3	3	1	1		
kalpana	2hrs	2	11977	6	1	2	2	1	3	2	3	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
rajamalar	2hrs	2	89964	6	1	1	1	2	1	1	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
gayatri	19hrs	2	89965	6	1	2	2	1	1	1	3	2	2	2	2	2	2	1	1	3	3	2	2	2	3	2	2	1	1		
sugarut	5hrs	2	11995	6	1	1	1	2	4	4	3	2	2	2	2	2	2	1	1	3	3	2	3	2	2	2	2	1	1		
ritvik	15days	1	14050	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	2	2	3	2	1	1	0		
varalaxmi	6d	2	14931	6	1	2	2	1	1	3	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
sowmya	6days	2	90898	6	5	2	1	2	3	2	7	2	2	2	2	2	2	1	1	3	3	2	3	2	2	2	1	1	3		
mohinishka	5hrs	1	90426	6	2	2	1	3	2	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
sanitha	10d	1	89431	6	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	3	3	2	3	2	3	3	3	1	1		
kanchana	4days	1	90421	6	5	2	1	2	1	1	7	2	2	2	2	1	1	1	1	3	3	2	3	2	2	3	3	1	2		
sulochana	10d	1	90649	6	1	2	1	2	3	2	2	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
savitha	4days	1	90816	6	1	2	1	2	1	1	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	1		
satya	5d	1	90126	6	1	2	1	2	3	2	6	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
eswammal	3hrs	1	90961	6	2	1	1	2	1	1	2	1	1	2	1	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
savitha	15days	2	90933	6	1	2	1	2	1	1	6	1	2	2	1	1	2	1	1	3	3	2	3	2	3	3	3	1	1		
sangeetha	22d	2	90958	6	4	2	2	1	3	2	2	2	2	2	2	1	1	2	1	3	3	2	3	2	3	3	3	1	1		
dhanalaxmi	6d	1	90987	6	1	2	1	2	1	1	7	2	2	2	2	2	2	1	1	3	3	2	3	2	3	3	3	1	0		
anitha	15days	1	290166	6	1	1	1	2	3	2	2	2	2	2	2	2	3	2	1	3	3	2	3	2	3	3	3	1	0		