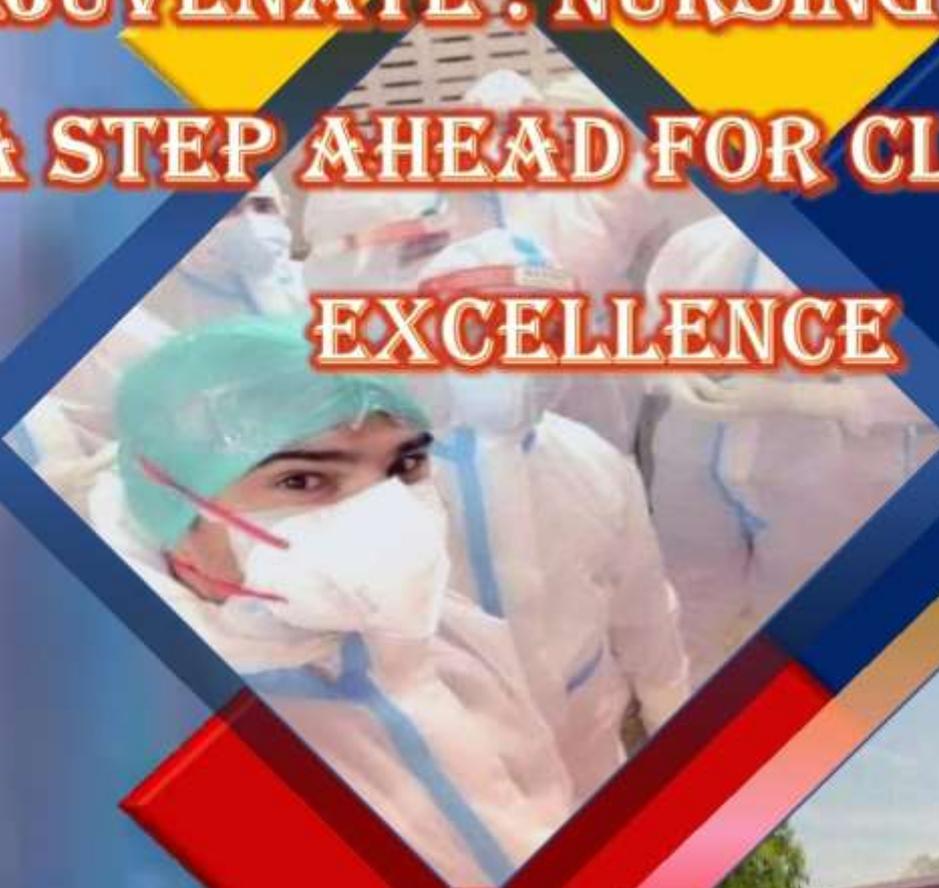


DIVISIONAL RAILWAY HEADQUARTERS HOSPITAL, PONMALAI

SOUVENIR



REJUVENATE : NURSING SKILLS - A STEP AHEAD FOR CLINICAL EXCELLENCE



DATE: 23.04.2022

**VENUE: AUDITORIUM, RAILWAY HOSPITAL,
PONMALAI**

THE DIVISIONAL RAILWAY HEADQUARTERS
HOSPITAL, PONMALAI, TIRUCHCHIRAPPALLI.



REJUVENATE : NURSING SKILLS -
A STEP AHEAD FOR CLINICAL
EXCELLENCE

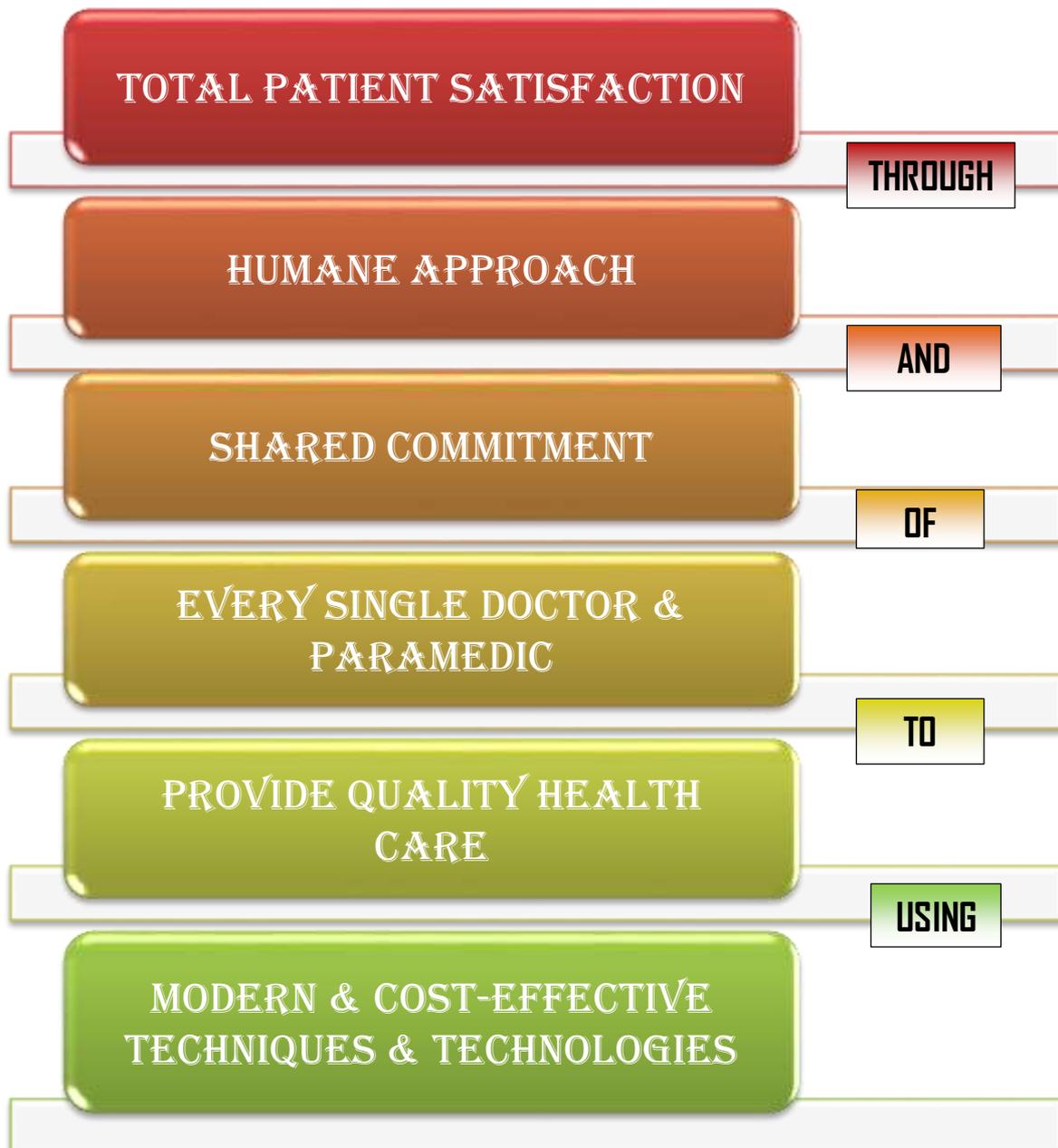


DATE: 23.04.2022

VENUE: AUDITORIUM, RH/GOC



INDIAN RAILWAY MEDICAL SERVICE - MISSION



CMS/TPJ



Health care Industry is complex and ever-changing; Inservice Education is an essential requirement for professional growth of a Nurse. Continuing education plays an important role to keep abreast of New Concepts, to increase the knowledge, concept and understanding , and to be professionally competent in facing the challenges in the Healthcare Industry. The development of knowledge, Skill and attitude results in the improvement of Nursing activity, and thus improves Patient Care.

It is my pleasure to know that Our Nursing Staff are arranging Continuing Nursing Education Programme on R(N)ACE 2022 in which many Nursing Staff are coming forward to present their topic individually with full details, so that all the delegates attending the programme will be benefitted especially in the Post Covid-19 Pandemic Period.

I wish all the Nursing Staff a grand success in this programme.

Best Wishes,

Dr. R. Soundararajan,
CMS/RH/GOC

ACMS (Admin)

Healthcare industry is continuously evolving, technologies considered best practice today can change drastically in just the span of a decade. Health care providers have to regularly keep up with new techniques and technologies and expand their knowledge and skills – which means ***continuous education is not a nice-to-have but an absolute necessity*** for healthcare professionals to provide **High-quality patient care**. Training and skill upgrades enhance job performance and help in career prospects.



“Change will not come if we wait for some other person or some other time. We are the ones we’ve been waiting for. We are the change that we seek.” -Barack Obama

The effort and the hard work of the Nursing fraternity, Golden Rock to adapt to the changes by not only by self-upgrading their skills by themselves but also imparting the upgraded skills and knowledge to others of the zonal Railways through this **CNE R(N)ACE 22** is highly appreciable.

I wish them all success for their future endeavours.

Regards,

Dr. M.Baskaran
ACMS(Admin)/RH/GOC

ACMS(H)

“ Nursing is the noblest of all Professions as it is based on motherly care and Sisterly affection”

Nurses play a Key role in any Hospital. They coordinate with all departments and aid in the delivery of patient care bridging between the doctor and patient, carrying out all advices. They govern other paramedics subjected to their supervision and ensure that patient gets a clean hospital environment.

Over the past Century, The Divisional Railway Headquarters Hospital, Ponmalai has tirelessly served its beneficiaries without any compromise. It would not be possible without the dedication of Our Nursing Staff involved in patient Care.

I am delighted to Know that The Nursing department of Our Divisional Railway Headquarters Hospital, Ponmalai is organising an In-House CNE Programme, aiming to explore new Horizons in the field of Nursing, focused on Quality patient Care delivery. It is a matter of joy and honour that a large number of eminent nursing experts from all over the division are participating in the Programme. This collaborative and constructive initiative will surely improve Quality of Nursing Care delivery. I strongly believe that the knowledge gained by delegates will go a long way in addressing Nursing issues and identifying areas of improvement pertaining to the field and soon be implemented at their work setting.

The department of Nursing of Our Hospital has always been a fortune for the institution, which was well proved during the Covid-19 Pandemic. They have been very passionate and committed for the profession, overcoming every obstacle during our voyage against the Crisis.

Paying tribute to the past and expressing grateful thanks to those who had untiringly laboured for an Organization's fame is very essential for motivating them to march forward. I appreciate the Nursing administrators for having decided to release a **Souvenir** in this Programme. I congratulate each and everyone involved directly or indirectly in organizing this Programme. I am sure the Programme will emboss an ever-refreshing image and everlasting impression in the heart of everyone.

Regards,

Dr. V. Anand Kumar
ACMS/H/RH/GOC



ASSISTANT NURSING OFFICER

Greetings to all !

A sea change has taken place in last few decades in the health care industry, where changing profile of population, emerging diseases and rapid growth in health care technology are placing health care challenges to meet the demand. Our Patients are becoming more vigilant and educated. This requires a transformation in the health care system to reassess the roles of health care professionals and to bring change in the mindset of nurses to prepare them for the future health care needs.



Today's nurses need to increase their visibility and self-worth, must take lead in bringing revolution of health care in making patient care more sensitive, affordable and quality driven. Transformation of such intensity is not very easy at individual or system level. It involves analysis of goal, mission, partnership and all essential element of organization.

To ensure this fundamental shift, the CNE programme has been planned to deliver sessions on getting deeper understanding and updated knowledge to meet the demand of the Health Care System enabling Our Nursing fraternity Future Ready.

In this CNE we intend to take an incremental step to listen to the views from experts of multiple disciplines who will contribute their experience in shaping the pathway for the progress of nurses in the coming decades. Take home message may be carried forward by the participants in their professional arena to confront the changing situation. Let us join hands together to share our knowledge and experience that will go a very long way in helping to build up the healthy, prosperous and developed nation.

As an Assistant Nursing Officer, I am excited to let You all know that Our nurses had the instinct of hosting a CNE, holding our banner Up high, making Our Hospital proud, being the First Institution to lead a CNE in the Southern Railway Zone, after the Covid-19 Pandemic.

I welcome all delegates to enjoy the academic feast.!

Warm Regards,

Mrs. B.J. Shalini Perinba Jothi

ANO/RH/GOC

THE NIGHTINGALE PLEDGE

I solemnly pledge myself before God and in the presence of this assembly, to pass my life in purity and to practise my profession faithfully. I will abstain from whatever is deleterious and mischievous, and will not take or knowingly administer any harmful drug. I will do all in my power to maintain and elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping, and all family affairs coming to my knowledge in the practice of my calling. With loyalty will I endeavour to aid the physician in his work, and devote myself to the welfare of those committed to my care.

FLORENCE NIGHTINGALE PLEDGE
1893



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AIRWAY MANAGEMENT FOR NURSES

A Patient with a blocked airway will die quickly, so it is vital that all nurses (especially those working on the intensive care unit) have appropriate airway management skills. Airway management must come first in an emergency situation and must not be attempted until the airway is patent. Many airway problems can be dealt with effectively with the use of simple techniques. Before attempting to secure a patient's airway, it is first necessary to perform a respiratory assessment, even if this is brief, because any airway management strategy used will need to be appropriate and patient-specific.

Airway assessment

The ability to place and maintain a secure airway in a variety of patients and clinical circumstances represents an obligatory skill for critical care staff (Reynolds and Heffner, 2005).

Airway assessment should ascertain whether there is any airway obstruction such as foreign bodies, vomit or tongue. Facial, mandible and laryngeal fractures should also be assessed for. See Figure 1 for a diagram of airway anatomy.

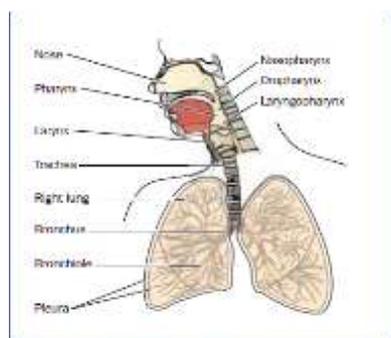


Figure 1. Anatomy of the airways

In the event that a patient's airway is closed, the most effective method to open it is the head tilt, chin lift approach. Place one hand on the patient's forehead, and apply firm, backward pressure with the palm of your hand. This will cause the patient's head to tilt back. Place the fingertips of your other hand under the bony part of the chin; lift the chin with your fingertips and lift the mandible upward and outward. However, it must be noted that this procedure is not to be performed if a neck injury is suspected. In such a case, seek senior medical assistance.

Breathing assessment Breathing assessment is required to ascertain the patient's ability to adequately ventilate. The first step is to observe the patient and simply watch how

they breathe. In medical terms this aspect of assessment is termed 'inspection', with medical colleagues adopting a logical progression of inspection, palpation, percussion and auscultation. What this means for nurses is observe (look), feel and listen. Observations When assessing a patient's respiratory system, it is important that the nurse makes a number of important observations. The nurse should look for effective, equal and bilateral chest wall expansion without any paradoxical movements.

Table 1. Respiratory observations

Colour	The colour of the patient's skin and mucus membranes is a useful indicator of haemoglobin saturation
Pursed lips	A sign of respiratory compromise. The patient appears to pucker or purse his/her lips, as if he/she is going to whistle
Flared nostrils	Flaring of nostrils is another sign of respiratory distress
Ability to speak	Increased effort to speak and/or inability to speak, as well as only being able to speak in monosyllables
Use of accessory muscles	A patient who is in respiratory distress uses additional muscles to breathe. These include sterno-mastoid, scalene and abdominal muscles. With advanced training the nurse should be able to assess whether a patient is using these additional muscles or not
Rate, rhythm and depth of breathing	Nurses should assess whether the patients' respiratory rate is above or below normal level. In an emergency situation, it is difficult to assess lung volumes, so observing the depth of breathing is an important indicator
Shape and expansion of chest	When performing a respiratory assessment it is important to consider both the shape and expansion of the chest. For example, the anteroposterior (AP) diameter may change for a number of reasons and not just because of an underlying respiratory problem

Paradoxical movements might include:

- Observing only one side of the chest moving up and down.
- Greater movement of one side of the chest when compared with the other.
- One side of the chest moving up and the other side moving down.

Any asymmetrical chest expansion is abnormal and any form of unilateral lung or pleural disease can cause this asymmetry of the chest. Furthermore, any of these observations might indicate respiratory disease/pathology. When undertaking a respiratory assessment it is not only important to consider the above, but also to perform checks for and record any vital signs.

Vital signs An assessment of the vital signs provides essential physiological information about patients. Impending critical illness and respiratory compromise can alter these signs.

- Increased temperature (indications for pneumonia, increase in the work of breathing)
- Increased pulse (cardiovascular to respiratory disease)

- Decrease in blood pressure (sepsis, etc)
- Decreases in O₂ saturations.

Oxygen saturation monitoring An effective way to monitor for hypoxaemia is to use a pulse oximeter. This is a good bedside monitor, but its limitations should be recognized. A pulse oximeter is a continuous and non-invasive monitor. Its principal limitation is that, in patients who are receiving supplemental oxygen, it will not reliably detect hypoventilation. In the clinical environment, hypoventilation must be confirmed by measurement of the PaCO₂ by arterial blood gas analysis. PaCO₂ (partial pressure of carbon dioxide) is the amount of carbon dioxide gas dissolved in the plasma. The amount of carbon dioxide expelled from the lungs can be measured using an end-tidal CO₂ monitor. The normal end-tidal value is approximately 40mmHg or 5%, but this rises in patients with respiratory diseases (Viney, 2002; Oh et al, 2003). In most circumstances, the trend in oxygen saturation is more important than the value per se, as this can indicate whether the patient is responding to therapy or deteriorating. Normally, a person's O₂ saturation will range between 98% and 100%. However, saturations will fall in many respiratory conditions. It is therefore necessary to maintain oxygen saturation as near to normal as possible.

In order to obtain O₂ saturations successfully, the probe should be placed in the best possible position to gauge the best possible reading. There are a number of places where the probe can be attached; these include the fingers, toes, ears and nose.

The nurse should bear in mind that pulse oximeters can provide false information if the probe is inappropriately placed, or if the patient is cardiovascularly compromised (low blood pressure) and/or unduly sweaty or cold. In addition, it must be acknowledged that certain patient groups (e.g. patients with chronic obstructive pulmonary disease (COPD) and emphysema) may have normally low oxygen saturations, and so the nurse will need to consider this when interpreting pulse oximeter data.

Respiratory management skills Any deviations discovered during the basic respiratory assessment will need to be acted on. One of the very first and most basic respiratory management skills essential for good patient care is that of oxygen therapy. Nurses need to know when to initiate oxygen therapy, how to deliver oxygen safely and appropriately, and base oxygen delivery on patient needs. In

combination with respiratory assessment and oxygen saturation monitoring, if a patient requires oxygen, then this needs to be administered safely and effectively.

Administering oxygen If a patient's condition necessitates the administration of oxygen, then this should be carried out as quickly and as efficiently as possible. Although technically and legally oxygen is a drug that must be prescribed by a qualified practitioner, in the emergency situation the absence of a prescription should not delay the administration of this essential intervention. Once the decision to administer oxygen has been made, an appropriate oxygen delivery device will need to be used. There are two types of oxygen delivery system—variable performance and fixed performance.

Variable performance oxygen delivery systems These oxygen delivery systems are classed as variable because it is impossible to predict the true inspired oxygen concentration (FiO₂) that they deliver. Although the system delivers oxygen at a given rate, the concentration delivered is dependent on the patient's pattern of breathing.

- i) Simple face mask—Hudson mask (2 in Figure 2). This mask will deliver between 35% and 45% oxygen and is commonly used as an initial oxygen delivery device in a respiratory emergency. However, owing to its inability to deliver high concentrations of oxygen above 45%, it is of limited use in severe respiratory distress where high oxygen flow is needed.
- ii) Non-rebreather) Rebreathing mask with

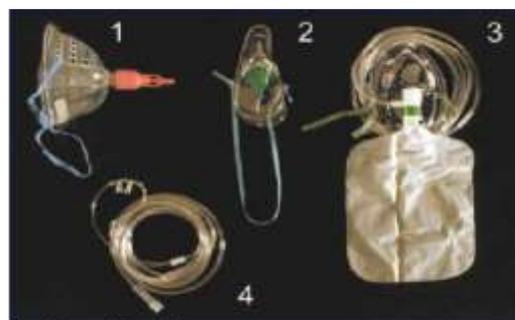


Figure 2. Oxygen delivery devices

reservoir bag (3 in Figure 2). The reservoir bag improves the maximum FiO₂ to up to 70%. The reservoir fills up with oxygen during expiration and is breathed in during inspiration. This is used in severe respiratory distress where high-flow oxygen is needed.

iii) Nasal cannula (4 in Figure 2). A nasal cannula is used for delivering supplementary oxygen, but has limited use in an emergency situation. This system delivers 28–30% oxygen.

Fixed performance oxygen delivery systems: These systems deliver a precise concentration of inspired oxygen (FiO_2), which is unaffected by the patient's breathing pattern.

i) High airflow enrichment masks— Venturi masks (1 in Figure 2). When used correctly they will deliver a known FiO_2 . Precise FiO_2 of 24%, 28%, 35%, 40% and 60% can be achieved. These masks are used for treating patients requiring controlled oxygen therapy.



Figure 3. Guedel airway

All of the above oxygen delivery systems can only be used in patients who are spontaneously breathing and who can maintain their own airway. Should the patient develop severe respiratory distress and become unable to maintain their own airway, it may become necessary for the patient to have a Guedel airway inserted (Figure 3). These are colour-coded to aid in the selection of the correct size, and size is determined by the size of the

Sizes	Colour	
000	Violet	Smaller
00	Blue	↓ Larger
0	Grey	
1	White	
2	Green	
3	Orange	
4	Red	
5	Yellow	Larger

patient. The shape of the airway is designed to hold the tongue in the right anatomical position, but insertion of the airway requires that it is initially inserted upside down and rotated 180°. The correct positioning is shown in Figure 4.

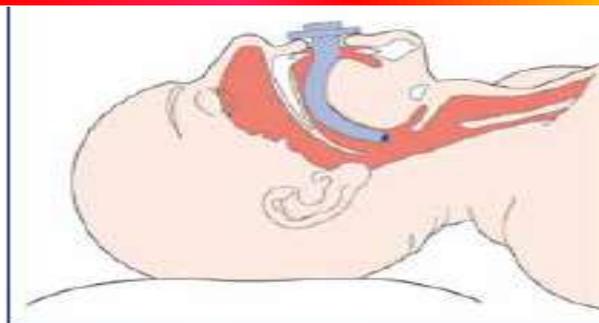


Figure 4. Fitting of the Guedel airway

Although supplementary oxygen can improve oxygenation and a Guedel airway can help maintain a patent airway, both require that the patient spontaneously breathes. However, when cessation of breathing occurs or when respiratory rate and effort is insufficient to maintain normal respiratory function, intubation may be required. This will involve the insertion of an endotracheal (ET) tube (Figure 5). Nurses need to be competent in assisting medical practitioners in the performance of this respiratory management task.

Laryngeal mask airway Another means of maintaining an airway is via the use of a laryngeal mask airway (LMA) (Figure 6). The use of these airways has increased in the last few years as they can be placed with ease and speed. The LMA is usually indicated as an alternative to the face mask for



Figure 6. Laryngeal mask airway (LMA)

achieving and maintaining control of an airway, and has proved to be a valuable tool in the emergency management of a failed intubation, as it helps establish and maintain an airway (Chethan and Hughes, 2008). The LMA is a supra-glottic airway device and can be inserted by less experienced practitioners. LMAs come in five different sizes (1–5). Before insertion, the cuff of the LMA is inflated and checked for any leaks and this is then deflated, lubricated, and the mask end of the device inserted through the mouth with the bowl end facing the tongue. The mask is then pushed backwards gently and should follow the natural bend of the oropharynx. The cuff is then inflated to form a

low pressure seal around the glottis. However, the LMA does not protect against aspiration and is contraindicated in patients who are at risk of regurgitation. Nasogastric tube aspiration can prevent this problem.

Endotracheal intubation The most common method of securing a patient's airway in an emergency situation is via the ET tube. Again, the size of the ET tube is usually



Figure 5. Endotracheal (ET) tube

determined by the size of the patient in question. However, usually a size 8 tube will suffice for a female and a size 9 tube for a male. Once inserted, the nurse should check that the ET tube is in the correct place. This is done by watching for both equal and bilateral chest movements and listening for air entry. It is, of course, of great importance to secure the ET tube once it is in place to prevent it from moving. The indications for intubation usually mean that the patient is respiratorily compromised with little or no spontaneous respiratory effort. Therefore, once the ET tube is correctly placed, some form of artificial support will need to be provided. This will include either the use of an ambu bag or attachment to a mechanical ventilator.

Tracheostomy A tracheostomy is commonly performed in seriously ill patients to allow continued maintenance of a compromised airway (Veelo et al, 2008).

A tracheostomy is usually a surgical procedure indicated in a number of acute and chronic conditions. It involves the creation of an opening into the trachea to facilitate breathing, but while the main aim of the procedure is to facilitate ventilation of an airway-compromised patient, its secondary use is ensuring the ease of using suction techniques to remove secretions (Delaney et al, 2006; Trouillet et al, 2010). A number of different tracheostomy

tubes are available and the choice for use will depend on patient need. If the patient needs ventilation, then a cuffed tube will be used with the cuff inflated to between 15 and 22mmHg. It is vital that the cuff pressure is checked regularly and that the cuff is deflated and reinflated at appropriate intervals to prevent the effects of pressure on the internal wall of the trachea. Suction should be applied above the cuff prior to deflation to remove any secretions. Fenestrated tubes are used when weaning the patient off ventilation and encouraging oral communication. Patients considered for a fenestrated tube must have a patent airway and be able to expectorate secretions (Marchese et al, 2010).

Whatever the need for a tracheostomy, there is always a higher risk of chest infection owing to the by-passing of the protective measures of the upper airway, such as warming, filtering and humidifying air. A tracheostomy is often associated with a number of potential early and late complications (see Table 3—overleaf)

Table 3. Early and late complications of a tracheostomy

Early complications	Later complications
Haemorrhage	Tracheal stenosis
Hypoxia	Pneumonia
Damage to larynx	Fistula formation
Surgical emphysema	Pressure sores from flange or cuff
Blockage from secretions	Tracheomalacia (destruction and necrosis of tracheal wall)
Potential cardiac arrhythmias	

Given the range of potential complications, it is evident that the patient must be closely monitored and that cleansing measures must be scrupulous, timely and meticulous (Arabi et al, 2004). Suction must be applied regularly and immediately if the patient displays any signs of low oxygen saturations, cyanosis, gurgling sounds within the chest, or displays visible secretions around the tracheostomy site. However, it may be appropriate to nebulize and pre-oxygenate the patient before this procedure. Stringent measures to control any cross-infection risk must also be adhered to. Equally, the required emergency equipment

must be kept at the patient's bedside for immediate use should the need arise (Marchese et al, 2010).

Maintenance of oxygen delivery Whichever oxygen delivery system is used, it is important that the nurse continuously monitors the effectiveness of oxygen delivery. If the patient does not respond to initial oxygen therapy and/or if the patient's condition deteriorates, then the nurse will need to take appropriate action. For example, oxygen delivery might have to be increased and adjusted.

Suctioning Suctioning is a vital skill that all nurses need to be able to perform and perfect. If, after the initial assessment, the patient appears to be retaining secretions

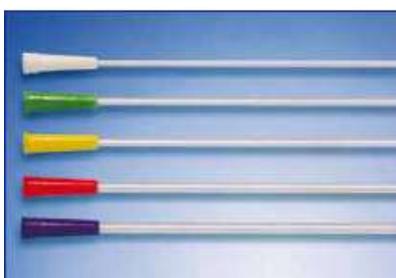


Figure 7. Suction catheters

and unable to remove these secretions, then they will need to be removed manually. If the patient is receiving non-

invasive oxygen therapy, then secretions can be removed using a Yankauer sucker. If a patient requires ET intubation, then it might be necessary for the nurse to perform ET suctioning. This is done to remove secretions from the airways and it is another essential skill that nurses need to be able to perform effectively. ET suctioning can improve the patency of the airway, improve oxygenation and improve gaseous exchange (Viney, 1999). To perform ET suctioning appropriately, the correct size suction catheter should be used. (Figure 7) The following formula can be used to work out the correct size of catheter

$$\text{suction catheter size} = \frac{\text{ET tube size} \times 3}{2}$$

For example, a patient with a size 8 ET tube will require a size 12 suction catheter.

Conclusions Airway management is a vital and important skill that all nurses should possess. Skill in managing a patient's airway forms part of the core critical care skills that the National Institute for Health and Clinical Excellence

(NICE) (2007) have identified as essential for all nurses to possess appropriate airway management strategies as outlined in this article. Using these skills, patients will receive appropriate respiratory care quickly, efficiently and effectively.

All nurses should be competent in performing a respiratory assessment using the look, feel and listen principles. Based on the assessment, nurses should also be able to implement appropriate airway management strategies.

NURSING CARE IN COMMON OBSTETRIC EMERGENCIES

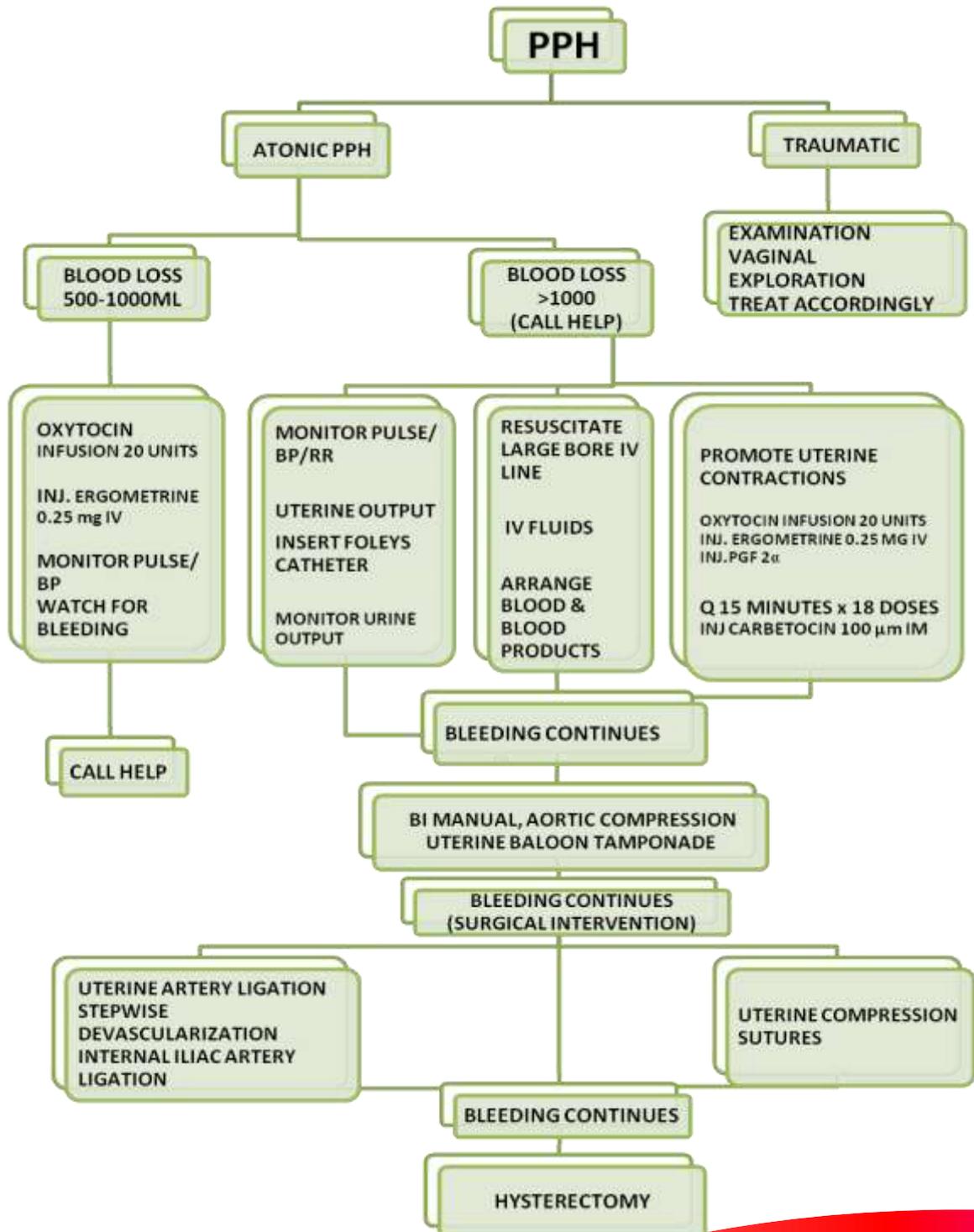
Nursing Management of PPH

1. Insert a large-bore intravenous line. If necessary, two lines can be started.
2. Obtain blood sample for hematocrit and cross-match.
3. Start normal saline infusion with 20 units of oxytocin.
4. Monitor pulse, blood pressure and respiratory rate.
5. Insert Foley catheter and monitor urine output.
6. Other uterotonics are used as the second line.
7. Place a hand on the Uterus to check for contraction and provide Uterine massage.
8. Continue volume resuscitation with Normal saline/lactated Ringer's and colloids while awaiting blood.
9. Transfuse blood and blood products as required. If a specific group is not available or in case of emergency, 'O' negative blood can be used.
10. If bleeding continues, inspect the cervix and vagina for lacerations and explore the uterine cavity for retained placental tissue.

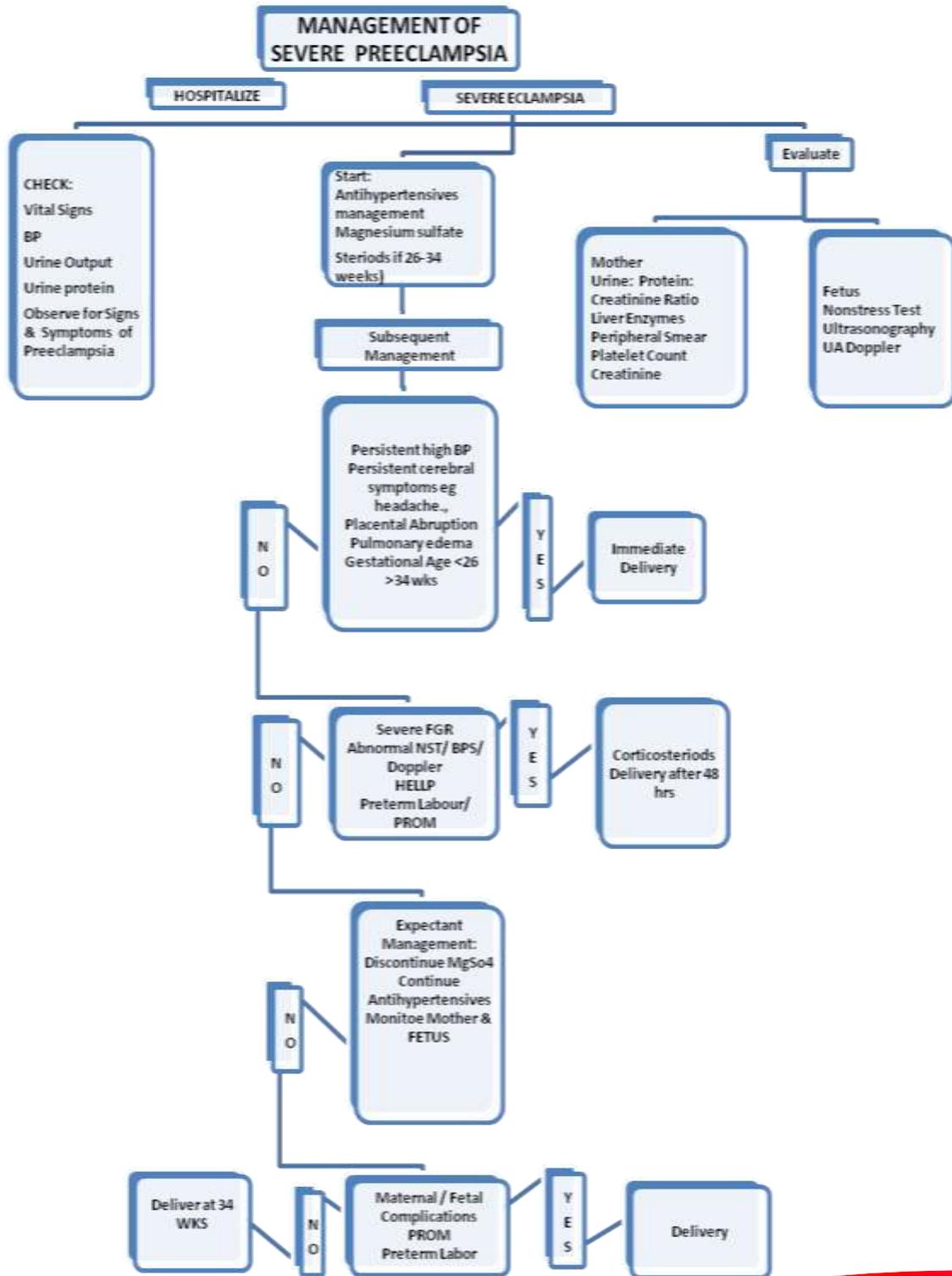
Uterotonics used in the management of Postpartum Hemorrhage

Drug	Dose/Route	Frequency	Comment
Oxytocin	IV: 20-40 units in 500 ml normal saline or lactated Ringer's solution	Continuous	Avoid undiluted rapid IV infusion which causes hypotension
Methyl ergometrine	IV: 0.25 mg	Every 2-4 hours	Avoid if patient is hypertensive
PGF_{2α} (ProstaglandinF2 alpha)	IM:0.25 mg	Every 15-90 min, 8 doses maximum	Avoid in asthmatic patients; relative contraindication if hepatic, renal and cardiac disease. Diarrhea, fever, tachycardia can occur
Misoprostol (PGE₁)	800-1,000 µg rectally		Used only if injectable uterotonics not available

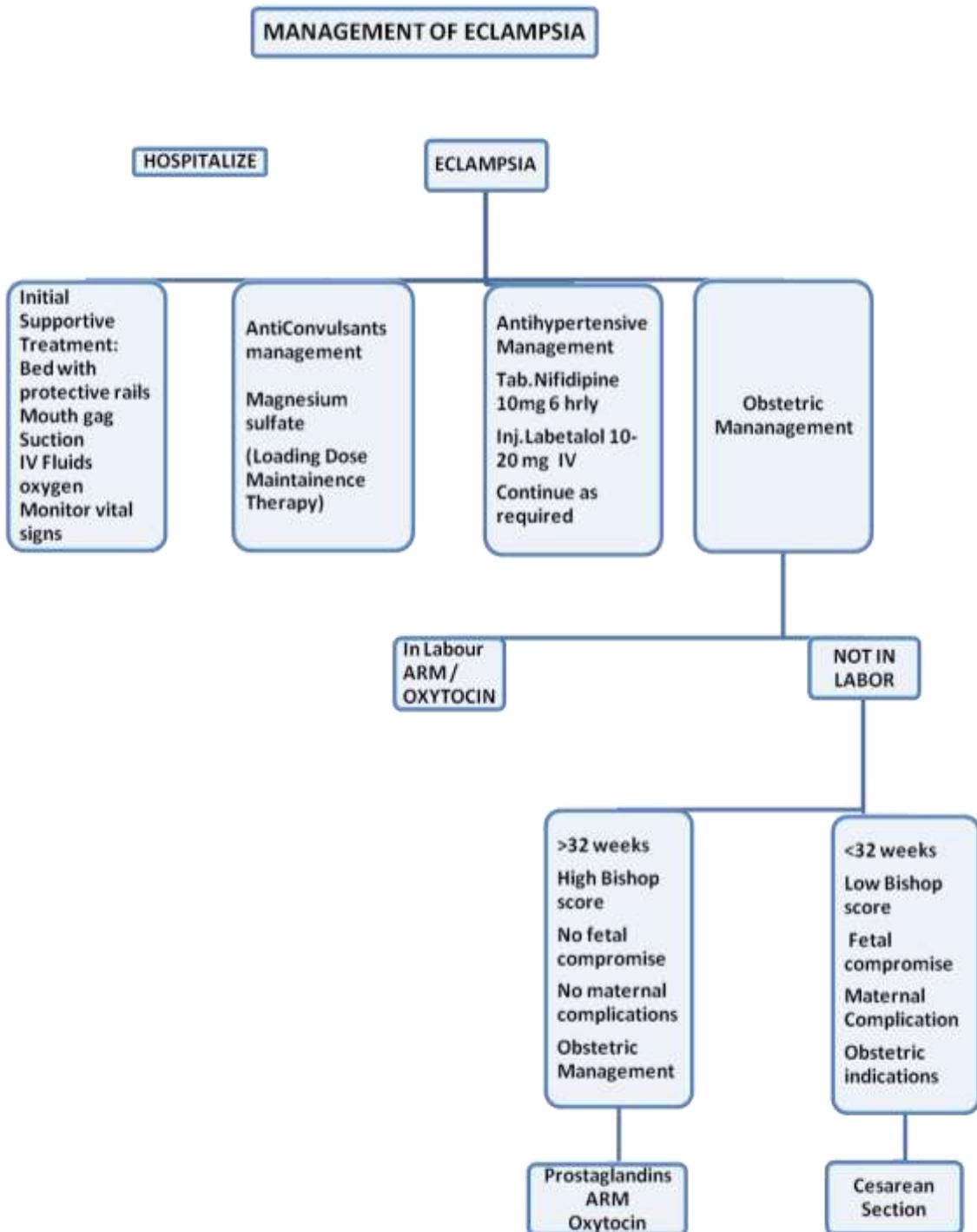
MANAGEMENT OF POST PARTUM HEMORRHAGE



MANAGEMENT OF PRE-ECLAMPSIA



MANAGEMENT OF ECLAMPSIA



PRITCHARD REGIMEN	<ul style="list-style-type: none"> • MgSo4 ADMINISTRATION
LOADING DOSE: (20% MgSo4)	<ul style="list-style-type: none"> • 50 % MgSo4 EACH ML CONTAINS 500 mg • Dilution 20% MgSo4 • INTRAVENOUS: 4 gm MgSo4 (8ml) + Distilled Water (12ml) Slow IV over 20 minutes (20 ml) • INTRA MASCULAR: 10 ml MgSo4 IM in each Buttocks (5gm MgSo4)
MAINTENANCE DOSE: (After 4 hours of Loading dose) (50% MgSo4)	<ul style="list-style-type: none"> • 50 % MgSo4 EACH ML CONTAINS 500 mg • (5 gm MgSo4 q4h) • 10ml MgSo4 ((Rt) Gluteal/ (Lt) Gluteal Alternatively) • Continue upto 24 hours • should Continue 24 hrs after Delivery/ Seizure which ever is later
MONITOR THE FOLLOWING BEFORE ADMINISTRATION	<ul style="list-style-type: none"> • Deep Tendon Reflexes • Respiratory Rate • Output Monitoring
Antidote For MgSo4	<ul style="list-style-type: none"> • 10% Calcium Gluconate (EACH ML CONTAINS 100 mg) • 10 ml of 10% Calcium Gluconate over 10 mts

Anti-Hypertensives used in preeclampsia – Drugs and Dosage

Drug	Mechanism	Dosage
α methyl dopa	Centrally acting, Reduces sympathetic outflow, Delayed onset of action (3-6 hours)	250-500 mg 6 hourly oral; maximum
Labetalol	Alpha-beta adrenergic blocker Rapid onset of action (1-2 min)	20-40 mg IV Every 10-15 min 200 mg twice daily oral; 220 mg maximum/ cycle
Nifedipine	Calcium channel blocker Rapid onset of action (5-10 min)	10 mg every 30 min oral Followed by 10-20 mg 6-8 hourly
Hydralazine	Peripheral vasodilator Rapid onset of action (10-20 min)	5-10 mg IV Every 15-20 min, maximum 30 mg

APGAR SCORE

	0	1	2
A Appearance (Skin colour)	Blue, Pale	Pink – Body Blue – Extremities	Pink
P Pulse	-	<100	≥100
G Grimace (Reflex irritability)	-	Facial Response only (cry) when stimulate	Pulls away, sneezes, cough, cries with stimulation
A Activity(Muscle tone)	-	Flexed arms & legs	Active
R Respiration	-	Weak cry	Vigorous cry (cough / sneeze)

BISHOP SCORE

BAD ≤ 5-6 GOOD ≥ 7-8

	0	1	2	3
DILATATION	0	1-2 CM	3-4 CM	5-6 CM
EFFACEMENT	0-30% / >4cm	40-50%/ 2-4cm	60-70%/ 1- 2cm	80%/ >1cm
STATION	-3	-2	-1/0	+1,+2
CONSISTENCY	FIRM	MEDIUM	SOFT	-
POSITION	POSTERIOR	MID	ANTERIOR	-

Emergency Codes

EMERGENCY CODE LIST	
	CODE BLUE Medical Emergency Adult CODE 13 Medical Emergency Pediatric
	CODE RED Fire Emergency
	CODE PINK Child Abduction (PATIENT)
	CODE AMBER Child Abduction or Missing (VISITOR)
	CODE WHITE Urgent Security Request
	CODE ORANGE Hazardous Materials
	CODE GREEN Emergency Operations Plan Activation
	ALL CLEAR Cancellation Notice
	OVERHEAD Security Alert
	OVERHEAD Weather Emergency

EMERGENCY CODES ARE COLOR-CODED INDICATORS used in health care facilities to alert all staff members of potential issues arising in a facility. These codes include unique prescribing criteria for how staff members should respond to a particular situation, ranging from an active shooter incident to a cardiac arrest.

Emergency codes help facility personnel understand how to effectively manage emergencies. Depending on the type of facility, emergency codes may be created by internal administrative officials or oversight agencies. There are a number of other codes hospitals may use to indicate emergency situations. Of which, CODE BLUE is discussed in detail in this content.

"CODE BLUE" The term "code blue" is a **hospital emergency code used to describe the critical status of a patient.** Hospital staff may call a code blue if a patient goes into cardiac arrest, has respiratory issues, or experiences any other medical emergency.

CHAIN OF SURVIVAL- OUT OF HOSPITAL & IN-HOSPITAL SETTING



The **chain of survival** refers to a series of actions that, properly executed, reduce the mortality associated with a Sudden cardiac arrest. Like any chain, the chain of survival is only as strong as its weakest link. The six interdependent links in the chain of survival are early recognition of sudden cardiac arrest and access to emergency medical care,

early CPR, early defibrillation, early Advanced cardiac life support, and physical and emotional recovery. The first three links in the chain can be performed by lay bystanders, while the second three links are designated to medical professionals.

Nursing Management

- Danger, Response, Airway, Breathing, Circulation (and compressions) – DRABC
- Activate a crisis resource management plan.
- Get help (eg. other paramedical staff).
- Facilitate teamwork
- Some history is better than no history
- Any drugs or allergies?
- Any ‘not for resuscitation orders’? (Ideally sighted, and on standardised forms)
- If available – ask relatives, check medical records
- Give oxygen (8 L/min) via Hudson mask (via bag-valve-mask system in cardiac arrest) Intravenous drugs are generally given over 2–5 minutes (but as a ‘push’ with saline flush.
- Continuous assessment and management until stable.
- Observe patients once stable (especially if sedative drugs have been administered).
- Be willing to consult with a CASUALTY/ ICU Duty Doctor for advice and patient transfer
- Practise safe sharps management, and follow infection control procedures
- Take detailed notes, and transcribe these to the patient’s medical record at the earliest opportunity.
Keep copies of any transfer of care letters.

Arrange debriefing as appropriate for the patient (or relatives), and for those involved in managing the emergency

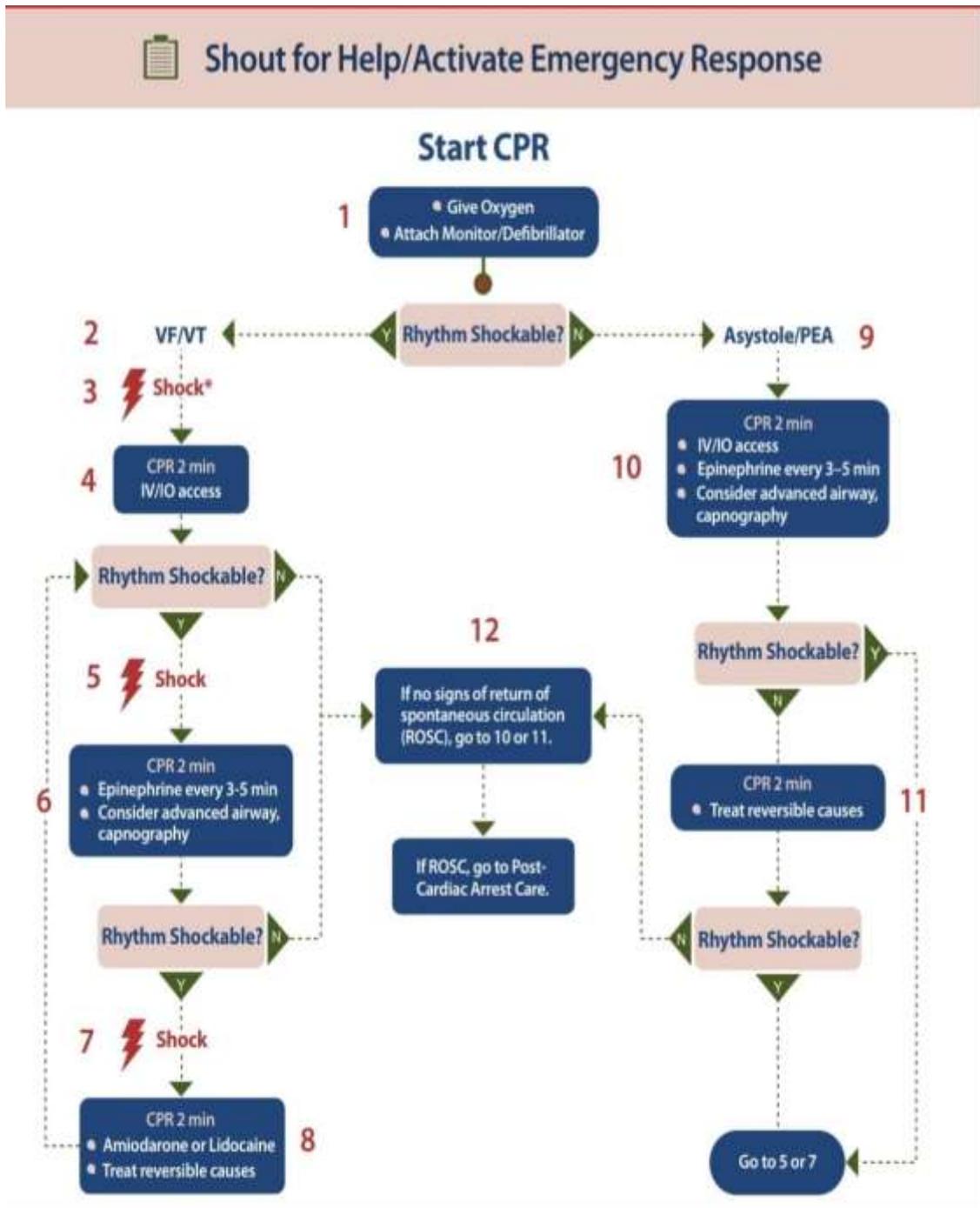
Cardiac arrest - Current guidelines

Emphasize the importance of cardiac compressions, and prompt defibrillation for ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT). Adrenaline is given every 3 minutes intravenously (IV) until Return Of Spontaneous Circulation (ROSC):

- Adult dosage: 1 mg with a saline flush (10–20 mL)
- Pediatric dosage: 0.01 mg/kg (10 µg/kg) (Table 3) with a saline flush (up to 5 mL). During cardiopulmonary resuscitation, the following drugs may be considered:
- VF or VT: lignocaine 1 mg/kg
- Asystole or Severe bradycardia: atropine 1.2–3.0 mg (adult); 20 µg/kg (child) In the hospital setting amiodarone is the first line drug for treating ventricular arrhythmias.

Following ROSC, blood pressure (BP) and adequate perfusion should be maintained.

ACLS 2021- ALGORITHM FOR CARDIOPULMONARY ARREST



Anaphylaxis:

- Adrenaline is given every 5 minutes intramuscularly (IM) (anterolateral thigh) until clinical features have improved. Up to 10 doses may be given:
 - Adult dosage: 0.5 mg.
 - Paediatric dosage: 0.01 mg/kg (10 µg/kg) (Table)
- In adults: Consider IV adrenaline if shock persists after two IM doses; use with extreme caution.

- Oxygen (8 L/min).
- Normal saline (20 mL/kg) is given for hypotension.
- Hydrocortisone 250 mg (or 4 mg/kg), single dose IV.

Potentially life threatening emergencies

Asthma and Bronchospasm :

Patients in Critical or severe illness will have any of the following:

- unable to talk,**
- SpO₂ <90%, agitated, confused, drowsy,**
- maximal accessory muscle use and recession.**
- RR >30**
- PR >120**
- Peak Expiratory Flow (PEF) less than 50% predicted or best**

Adult:

- Short acting beta agonists
- Controlled oxygen, to maintain SpO₂ 93 - 95%
- nebulized ipratropium 500 µg 2 hourly 15 minutes
- Oral/ IV Corticosteroids.
- Consider I/V Magnesium/ High Dose ICS

Pediatric:

- Short acting beta agonists
- ipratropium 20 µg/dose metered dose inhaler (MDI) via spacer, 2–4 puffs every 20 minutes in first hour
- Controlled oxygen to maintain SpO₂ 93% - 95%
- Consider I/V Corticosteroids hydrocortisone 4 mg/kg IV.
- If there is no response to inhaled salbutamol, then salbutamol should be given IV as a bolus (250 µg for adults, 5 µg/kg over 10 minutes for children) followed by an infusion. This may not be practical in most general practice settings.
- Consider IV adrenaline in extremis

Acute exacerbation of chronic obstructive pulmonary disease

Treat as acute asthma, with the following exceptions:

- controlled oxygen therapy to reduce the risk of inducing hyperoxic hypercapnia. In practice, oxygen at 2 L/min via nasal prongs is indicated to achieve oxygen saturation of 90–93%
- nebulized bronchodilators should be driven with high flow air, not oxygen
- start antibiotics for clinical signs of infection.

Acute Coronary Syndrome

- Oxygen 8 L/min
- Tab. Aspirin 300 mg, Clopidogrel 300 mg, Atorvastatin 80 mg orally
- Sublingual Tab. Sorbitrate 5 mg, 1 dose repeated after 5 minutes if no improvement
- Morphine 2.5 mg IV every 5 minutes as required, titrated to analgesic effect (maximum of 15 mg).
- Fibrinolysis (for ACS with ST elevation or new left bundle branch block)
- Patients who present less than 12 hours from symptom onset may be considered for fibrinolysis if percutaneous coronary intervention is not possible.

Severe upper airway obstruction

- Nebulized adrenaline (1 mg in 1 mL ampoules) adult dosage: 5 ml Pediatric dosage: 0.5 mL/kg (maximum dose: 5.0 mL); dilute to 5.0 mL if necessary.

Acute pulmonary oedema

- Oxygen 8 L/min – patient must be sitting up
- Frusemide 20 mg IV (consider 40 mg in patients currently taking frusemide) immediately
- Consider NIV Support..

Arrhythmias

- Cardiac monitoring is essential.
- Adenosine by rapid IV bolus (6 mg then 12 mg if required) is the drug of choice for converting SVT
- Supraventricular tachycardia (SVT): consider verapamil 5 mg IV over 1 minute if symptomatic and if Vagal Manoeuvre have failed.

Hypovolaemia

Normal saline IV : Adult dosage: 500 mL–1L bolus then infusion to maintain circulation

Pediatric dosage: 20 mL/kg bolus then infusion to maintain circulation. Consider inotropes, if refractory.

Hypoglycaemia

25% Glucose 50% IV at 3 mL/min via large vein.

– Adult and Pediatric dosage: 20–50 mL (depending on response).

Followed by regular monitoring to watch for recurrence of hypoglycemia.

Convulsive status (convulsion for longer than 10 minutes)

- Airway Protection.
- Oxygen 8 L/min,
- Diazepam
 - Adult dosage: 5–10 mg IV or 10–20 mg per rectum (PR)
 - Pediatric dosage: (Table)
- Midazolam (dose can be repeated after 15 minutes if there is persistent or recurrent convulsion)
 - Adult dosage: 5–10 mg IM or 2.5–5.0 mg IV
 - Pediatric dosage: 0.2 mg/kg IM or 0.1 mg/kg IV

Septicaemia (suspected)

- Ceftriaxone (After Test Dose)
 - Adult dosage: 2 g IV or IM
 - Pediatric dosage: 50 mg/kg IV or IM (maximum 2 g).

Psychiatric emergencies (adults)

Acute psychosis, mania, severe agitation, severe anxiety or panic attack, Delirium :

- diazepam 5–20 mg orally, or
- olanzapine 5 mg orally, or
- midazolam 2.5–10.0 mg IM or 2.5–5.0 mg IV every 20 minutes as required or
- haloperidol 2.5–5.0 mg IM or IV.

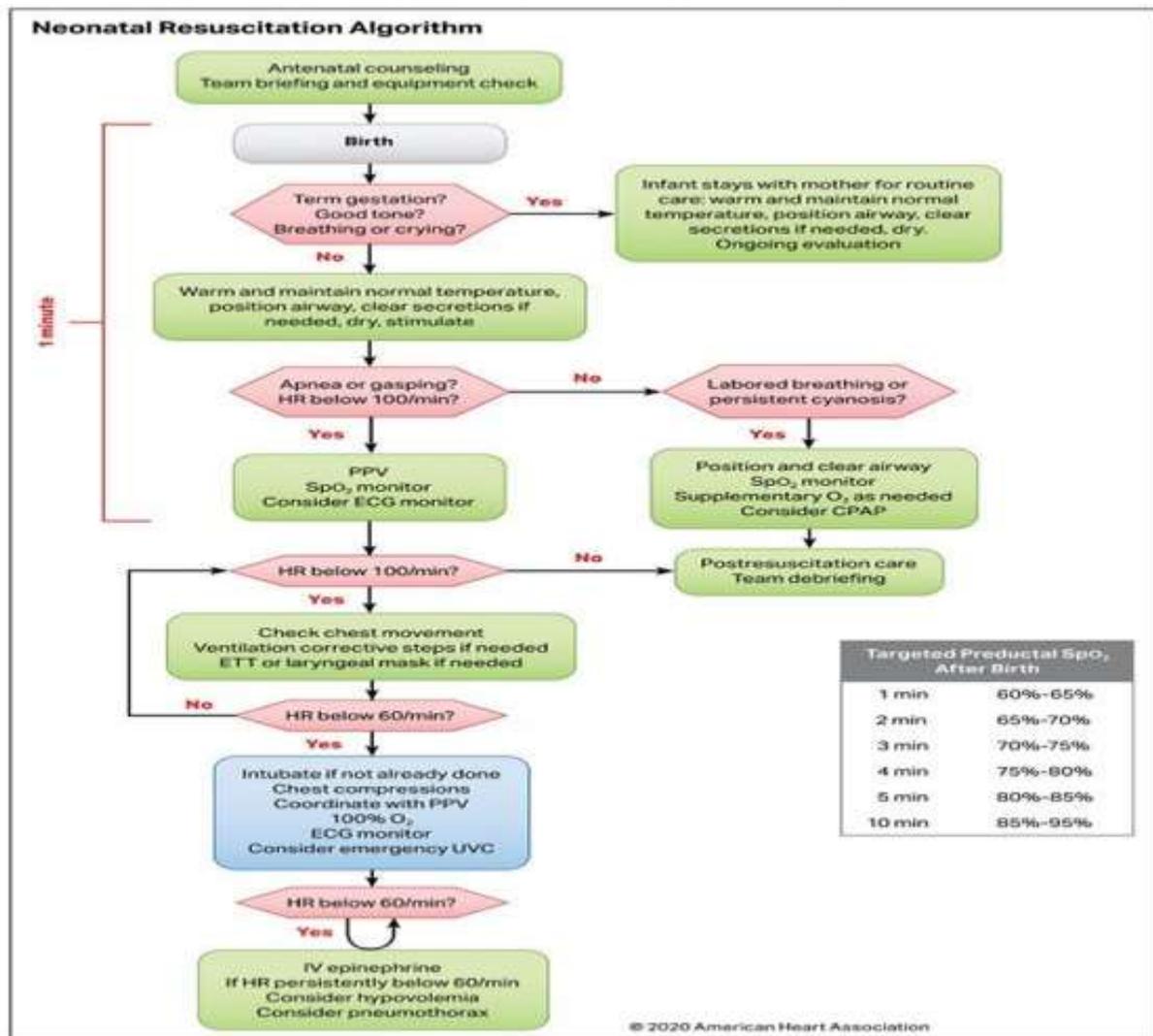
With severe disturbance, IV access will be impossible.

Pediatric Drug Chart for Adrenaline and Diazepam

Approximate age	Approximate weight (kg)*	Adrenaline 1 mg/1mL 0.01 mL/kg [†]	Adrenaline 1 mg/10 mL 0.1 mL/kg [†]	Diazepam IV 10 mg/2 mL 0.04 mL/kg	Diazepam PR 10 mg/2 mL 0.10 mL/kg
6 months	8	0.05 mL	0.5 mL	0.2–0.3 mL	0.5–0.8 mL
1–2 years	10	0.10 mL	1.0 mL	0.4 mL	1.0 mL
2–3 years	15	0.15 mL	1.5 mL	0.6 mL	1.5 mL
4–6 years	20	0.20 mL	2.0 mL	0.8 mL	2.0 mL
7–8 years	25	0.25 mL	2.5 mL	1.0 mL	2.5 mL
9–10 years	30	0.30 mL	3.0 mL	1.2 mL	3.0 mL [†]
11–12 years	35	0.35 mL	3.5 mL	1.4 mL	3.0 mL [†]
>12 years	40	0.40 mL	4.0 mL	1.6 mL	3.0 mL [†]

NEWBORN RESUSCITATION

1. Newborn Resuscitation requires anticipation and preparation by providers who train individually and as teams.
2. Most newly born infants do not require immediate cord clamping or resuscitation and can be evaluated and monitored during skin-to-skin contact with their mothers after birth.
3. Inflation and ventilation of the lungs are the priority in newly born infants who need support after birth.
4. A rise in heart rate is the most important indicator of effective ventilation and response to resuscitative interventions.
5. Pulse oximetry is used to guide oxygen therapy and meet oxygen saturation goals.



6. Chest compressions are provided if there is a poor heart rate response to ventilation after appropriate ventilation corrective steps, which preferably include endotracheal intubation.
7. The heart rate response to chest compressions and medications should be monitored electrocardiographically.
8. If the response to chest compressions is poor, it may be reasonable to provide epinephrine, preferably via the intravenous route.
9. Failure to respond to epinephrine in a Newborn with history or examination consistent with blood loss may require volume expansion.
10. If all these steps of resuscitation are effectively completed and there is no heart rate response by 20 minutes, redirection of care should be discussed with the team and family.

ACUTE ABDOMEN

The term 'Acute Abdomen' represents a rapid onset of severe symptoms that may indicate life-threatening intra-abdominal pathology, necessitating surgical intervention on most occasions.

Nursing Intervention

1. Assess pain

Rationale: We must have a detailed history to treat appropriately and know if it has changed. For example, a sudden relief of pain in a patient with appendicitis indicates rupture and an emergency.

Control pain: Patients who are in pain have trouble participating in care, relaxing, sleeping, and healing. Do what is necessary to proactively treat the patient's pain and notify the Doctor of changes or an inability to provide adequate relief. Examples: repositioning, heat/cold, medications (muscle relaxants, analgesics), and others as clinically appropriate.

2. Assess bowel movements (color, consistency, frequency, amount)

Rationale: Assessing bowel movements will aid in making clinical decisions. It is essential to report bowel movement characteristics and frequency accurately. It also ensures accurate intake and output recording.

Ensure adequate hydration; may require intravenous fluids, Patients with abdominal pain may have a diminished appetite. Be it NPO, or on oral fluids, assess and promote appropriate fluid balance, which may require notifying the Doctor of a decreased oral intake and the need for intravenous fluids to maintain fluid balance.

3. Assess bowel sounds

Rationale: It is essential to know the patient's quality as a baseline and routinely reassess to detect changes. If a patient has bowel sounds but now does not, it is essential to detect and notify the doctor, as they may not experience any symptoms.

Facilitate normal bowel patterns: Abdominal pain can be due to issues with the GI tract. It is essential to proactively address nausea, vomiting, constipation, and diarrhea as clinically appropriate.

4. Record intake and output

Rationale: Patients with abdominal pain may not be taking in the necessary amount of fluids or foods. Their urinary and/or bowel output may also be less. Accurate I&O is essential for appropriate clinical decision-making.

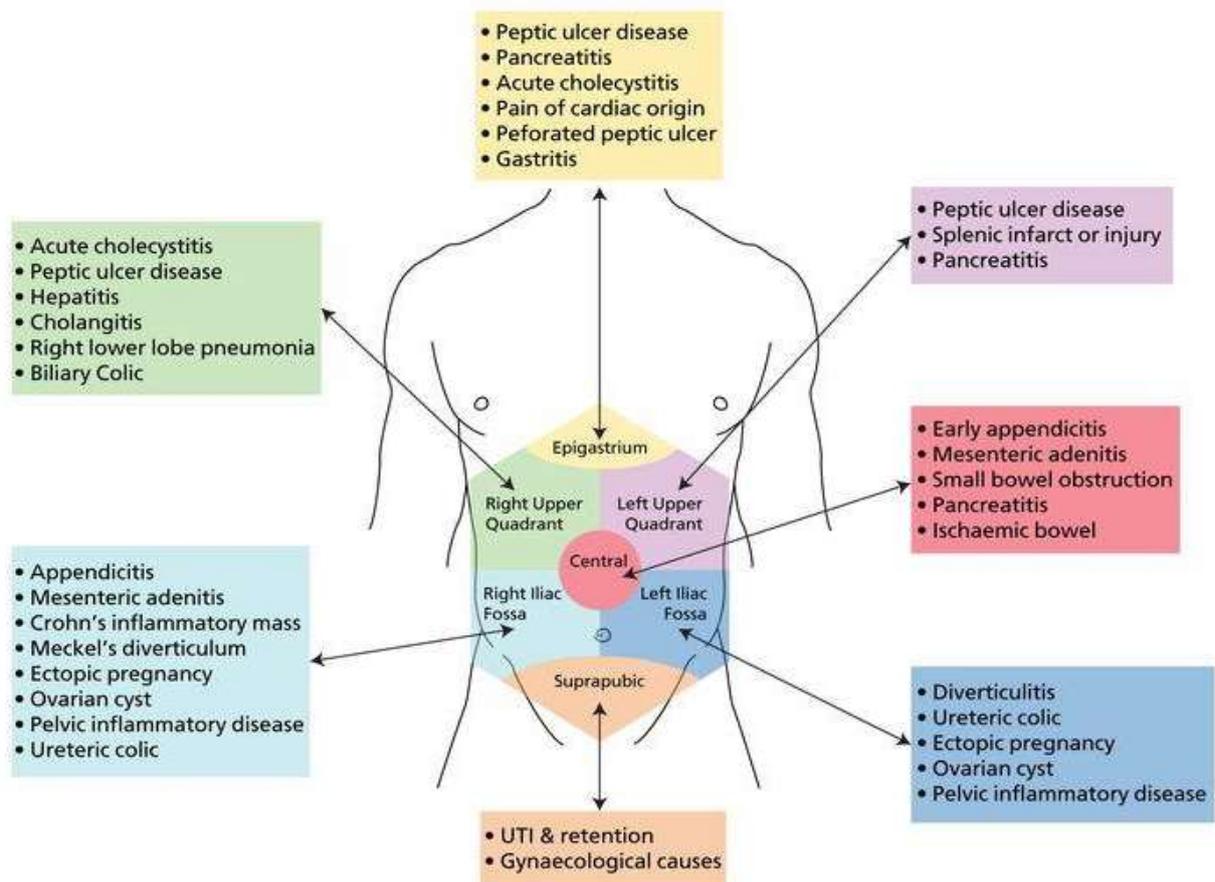
5. Prevent infection

Rationale: Pathogens (gastroenteritis, for example) can be the cause of abdominal pain. It is essential to promote adequate hand hygiene and infection prevention to prevent spreading it to others.

6. Assess abdominal distention, report changes in size and quality as appropriate

Rationale: Patients may be experiencing abdominal distention as part of the underlying disease process.

Classification of causes according to site of pain



Initial impression/observation

- Note whether the patient looks ill, septic or shocked.
- Note whether they are lying still (think peritonitis) or rolling around in agony (think intestinal, biliary or renal colic)?
- Assess and manage Airway, Breathing and Circulation (ABC) as a priority.
- If there are signs that the patient is shocked or acutely unwell, assess quickly but carefully and arrange any early investigation.

Examination

- Pulse: Tachycardia - Possibly Acute Inflammation of viscera, temperature and blood pressure.
- Assess respiratory rate and pattern. Patients with peritonitis may take shallow, rapid breaths to reduce pain.
- If there is altered consciousness, check Glasgow Coma Scale (GCS) or AVPU (Alert, Voice response, Pain response, Unconscious) scale.
- **Inspection:**
 - Look for evidence of anaemia/jaundice.
 - Look for visible peristalsis or abdominal distension.
 - Look for signs of bruising around the umbilicus (Cullen's sign - this can be present in hemorrhagic pancreatitis and ectopic pregnancy) or flanks (Grey Turner's sign - this can be present in retroperitoneal haematoma).
 - Assess whether the patient is dehydrated (skin turgor/dry mucous membranes).
- **Palpation:**
 - Palpate the abdomen gently, then more deeply, starting away from the pain and moving towards it.
 - Feel for masses, tenderness, involuntary guarding and organomegaly (including the bladder).
 - Test for rebound tenderness.
 - Examine the groins for evidence of hernia.
 - Always examine the scrotum in men, as pain may be referred from unrecognised testicular pathology.
 - Check supraclavicular and groin lymph nodes.
- **Percussion:**
 - Percuss the abdomen to assess whether swelling/distension might be due to bowel gas or ascites.
 - Patients who display tenderness to percussion are likely to have generalised peritonitis and this should act as a red flag for serious pathology.
 - Assess for shifting dullness and fluid thrill.
 - Percussion can also be used to determine the size of an abdominal mass/extent of organomegaly.
- **Auscultation:**
 - Auscultate the abdomen in all four quadrants.
 - Absent bowel sounds suggest paralytic ileus, generalised peritonitis. High-pitched and tinkling bowel sounds suggest subacute intestinal obstruction.
 - Intestinal obstruction can also present with normal bowel sounds.
 - If there is reason to suspect aortic aneurysm, listen carefully for abdominal and iliac bruits.

- **Further examination:**

- Perform rectal or pelvic examination as needed, with an appropriate chaperone in attendance.
- Check lower limb pulses if there could be an abdominal aortic aneurysm.
- Dipstick urine and send for culture if appropriate.
- In a woman of childbearing age, assume that she is pregnant until proven otherwise - perform a pregnancy test.
- Examine any other system that might be relevant - eg, respiratory, cardiovascular.

Abdominal Examination Manoeuvres in Acute Abdomen

Abdominal pain is a common presentation and is challenging to diagnose. Although most abdominal pain is benign, as many as 10 percent of patients in the emergency department setting and a lesser percentage in the outpatient setting have a severe or life-threatening cause or require surgery. Therefore, a thorough and logical approach to the diagnosis of abdominal pain is necessary.

Special Abdominal Examination manoeuvres:

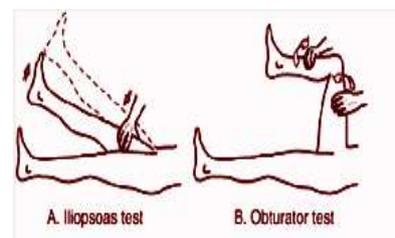
Tailored to the preliminary differential diagnoses formulated, further examination manoeuvres can be useful in establishing a diagnosis. In order to increase accuracy special signs and manoeuvres were utilised. Some examples are listed here:

The iliopsoas sign

The iliopsoas sign is performed by having the patient roll onto his/her left side and hyperextending the right hip joint. If pain is elicited the sign is positive and suggests an irritation of the iliopsoas muscle by a retrocecal appendicitis. Other pathologies that might lead to a positive iliopsoas sign are pyelonephritis, pancreatitis and psoas abscess.

The obturator sign

With the patient supine, the thigh of the patient has to be flexed passively and fully rotated inward. The test is positive, if pain is elicited by that manoeuvre and means that the obturator muscle is inflamed because of pathology of a neighbouring viscus. Causative pathologies might be a pelvic appendicitis, diverticulitis, pelvic inflammatory disease or ectopic pregnancy.



The Rovsing sign

The Rovsing sign is being tested by applying pressure to the left lower quadrant. If pain is being referred to the Mc Burney point the sign is positive and increases the likelihood of appendicitis. However, the test is not perfect, since it has both false positives and negatives.



Murphy sign

The Murphy sign is performed by asking the patient to take a deep breath while palpating the right upper quadrant of the abdomen. If the patient abruptly stops the inspiration, the sign is positive and is suggestive of acute cholecystitis. Numerous studies were conducted, which evaluated the sensitivity and specificity of the Murphy sign, leading to varying results ranging from 44%-97% and 48%-96% respectively .



Cullen and Turner signs

Both represent ecchymoses on the skin of the abdomen, which result from intraperitoneal or retroperitoneal haemorrhage which dissects through the skin.

The **Cullen sign** was first described in case of a ruptured ectopic pregnancy and represents a periumbilical ecchymosis and the **Turner sign** is a discolouration of the flanks and is suggestive of hemorrhagic pancreatitis.



Strictly speaking, the only difference between those two signs is the eponym, especially as the location of the bruise does not give clues about the origin of the bleed.

Care of suspected Abdomen

- Keep the patient nil by mouth.
- Apply oxygen as appropriate.
- Intravenous (IV) fluids: set up immediately if the patient is shocked and the equipment is available.
- Send blood for group and save/crossmatch and other Blood tests: FBC, U&Es, LFTs, amylase, glucose, clotting, and occasionally calcium; arterial blood gas (pancreatitis) as appropriate.
- Consider passing a nasogastric (NG) tube if severe vomiting occurs, there are signs of intestinal obstruction or the patient is extremely unwell and there is danger of aspiration.
- Analgesia: the previous practice was to withhold analgesia until surgical review, but a surgical abdomen is very painful and is likely only to be adequately relieved by parenteral opiates - eg, morphine. One recent review showed that opiate administration may alter physical examination findings, but these changes result in no significant increase in management errors. Another study showed that morphine safely provides analgesia without impairing diagnostic accuracy.
- Antiemetic: avoid using this as a symptomatic treatment without considering a diagnosis in a community setting.

- Antibiotics: if systemic sepsis, or peritonitis, or severe urinary tract infection (UTI) is suspected. IV cephalosporin plus metronidazole are commonly used in acutely unwell patients in whom peritonitis is suspected.
- Arrange urgent surgical/gynaecological review as appropriate.
- Arrange investigations such as ECG if a medical cause is likely.
- Admit: if surgery is considered likely, if the patient is unable to tolerate oral fluids, for pain control, if a medical cause is possible or if IV antibiotics are required.

TYPE OF COLIC	RED FLAG SIGNS
Intestinal Colic	<ul style="list-style-type: none"> ○ Change in the nature of pain (Constant dull aching pain) not relieving with regular doses of analgesic ○ High fever ○ Signs of generalised peritonitis ○ Suggest “STRANGULATION”
Ureteric Colic	<ul style="list-style-type: none"> ○ High swinging fever ○ Renal angle tenderness ○ Palpable lump in loin ○ Ballottable kidney ○ Anaemia ○ Suggest “PYONEPHROSIS” ○ 1.Anuria ○ 2. Elevation of Serum creatinine ○ Suggest “END STAGE KIDNEY DISEASE”
Appendicular Colic	<ul style="list-style-type: none"> ○ Extremes of age ○ Signs of generalised peritonitis ○ High swinging fever ○ Fluctuant tender mass at RIF ○ Suggest “PERFORATED APPENDICITIS”
Biliary Colic	<ul style="list-style-type: none"> ○ 1.Presence of SIRS (systemic inflammatory response syndrome). ○ 2. Deteriorating general condition ○ 3.Evidence of sepsis ○ Generalised peritonitis ○ High swinging fever. ○ Suggest “PERFORATED/GANGRENOUS/SEVERE CHOLECYSTITIS”

A Randomized Control Study to evaluate the effectiveness of Intra articular Corticosteroid administration for Periarthritis Shoulder among the elderly patients of The Divisional Railway Hospital, Ponmalai.

Objective: To determine the effectiveness of Corticosteroid injection with Shoulder Mobility Exercises and SWD among patients with Shoulder Periarthritis

Methods: A randomised, controlled study was done among 40 patients with Shoulder Periarthritis. All the Participants were administered Corticosteroid Injection – Methyl Prednisolone 80 mg and taught Shoulder exercises to be done after the injection administration.

The experimental group was followed for 4 weeks after the procedure and adhered to exercise regimen strictly. Whereas the control group was reviewed directly after one month without any follow up.

Data Collection and Tool: Data Collection was made through direct interview method with a SPADI Questionnaire. Their initial pain and

ROM was recorded as baseline and compared with the weekly prognosis.

Ethical Considerations: All 40 patients were advised to practice exercises and Physiotherapy after the intervention. The experimental group was constantly monitored for performing exercises and SWD.

Experimental Group: Those patients who came up for regular follow Up and willing to strictly adhere to the Exercise regimen after the injection, formed the experimental group.

Control group: Those patients who have not consented for follow up and exercise regime formed the control group

Inclusion Criteria:

- Patients with mild and moderate Symptoms were included in the study.
- Patients in the Age group between 45 and 60 Years of Age.
- Both Male and Female Patients were included in the Study

Exclusion Criteria:

- Patients with Frozen Shoulder were excluded from the study

Data Analysis:

Out of the 40 patients included in the study, 20 patients were selected through randomization by lottery method and formed the experimental group. Other 20 patients were in control group.

Shoulder Pain and Disability Index (SPADI)

Please place a mark on the line that best represents your experience during the last week attributable to your shoulder problem.

Pain scale

How severe is your pain?

Circle the number that best describes your pain where: 0 = no pain and 10 = the worst pain imaginable.

At its worst?	0	1	2	3	4	5	6	7	8	9	10
When lying on the involved side?	0	1	2	3	4	5	6	7	8	9	10
Reaching for something on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Touching the back of your neck?	0	1	2	3	4	5	6	7	8	9	10
Pushing with the involved arm?	0	1	2	3	4	5	6	7	8	9	10

Disability scale

How much difficulty do you have?

Circle the number that best describes your experience where: 0 = no difficulty and 10 = so difficult it requires help.

Washing your hair?	0	1	2	3	4	5	6	7	8	9	10
Washing your back?	0	1	2	3	4	5	6	7	8	9	10
Putting on an undershirt or jumper?	0	1	2	3	4	5	6	7	8	9	10
Putting on a shirt that buttons down the front?	0	1	2	3	4	5	6	7	8	9	10
Putting on your pants?	0	1	2	3	4	5	6	7	8	9	10
Placing an object on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Carrying a heavy object of 10 pounds (4.5 kilograms)	0	1	2	3	4	5	6	7	8	9	10
Removing something from your back pocket?	0	1	2	3	4	5	6	7	8	9	10

Table a. AVERAGE SUBJECTIVE PAIN RELIEF

			WEEK			
			I	II	III	IV
CONTROL	M	8.1	7.8	7.2	7.4	6.4
	F	7.9	7.2	6.9	6.9	7.1
EXPERIMENTAL	M	8.2	7.1	6.3	5.8	5.1
	F	8.1	6.9	6.1	5.7	5.6

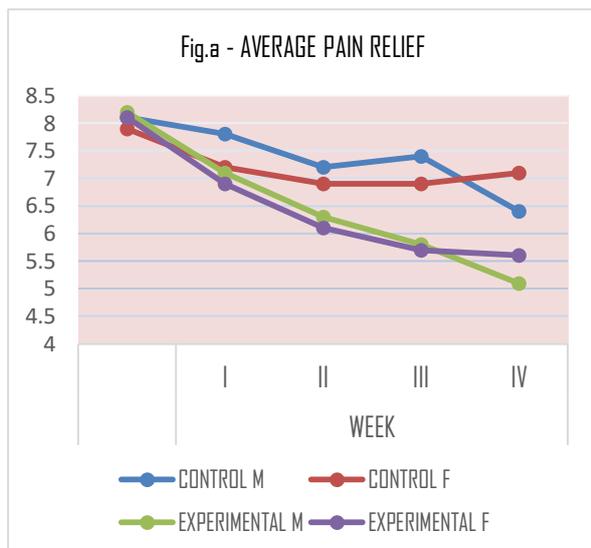
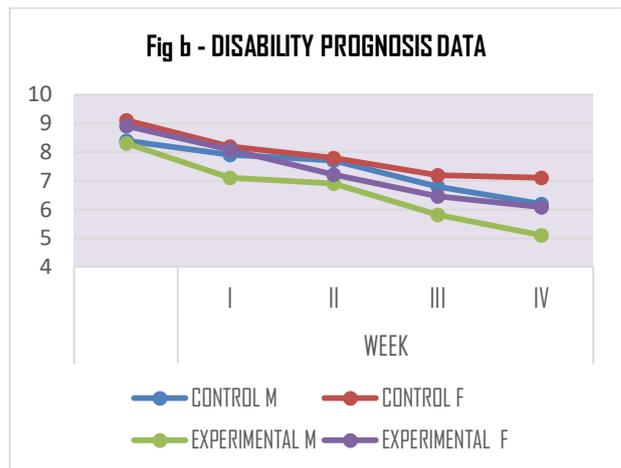
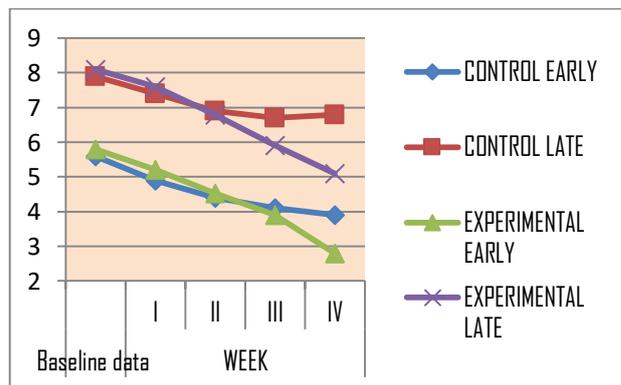


Table c. PROGNOSIS FOR EARLY & LATE PRESENTATION

			WEEK			
			I	II	III	IV
CONT	EARLY	5.6	4.9	4.4	4.1	3.9
	LATE	7.9	7.4	6.9	6.7	6.8
EXP	EARLY	5.8	5.2	4.52	3.9	2.8
	LATE	8.1	7.6	6.8	5.9	5.1

Table b. DISABILITY SCALE DATA - MEAN

			WEEK			
			I	II	III	IV
CONTROL	M	8.4	7.9	7.7	6.8	6.2
	F	9.1	8.2	7.8	7.2	7.1
EXPERIMENTAL	M	8.3	7.1	6.9	5.82	5.11
	F	8.9	8.08	7.22	6.46	6.08



Conclusion: At 4 weeks, significantly greater improvement in SPADI ($p=0.005$) was observed among the experimental group. On data collection, the control group failed to perform home exercises due to various factors. The study has revealed following findings.

- Performing shoulder mobility exercises along with the Corticosteroid injection will improve patient's ROM and provide significant relief from pain
- Female patients have relatively short -term pain relief compared with male subjects
- Patients who have reported in early stages (Mild to Moderate pain with no restrictions in performing ADL) had good recovery score compared with those reported Late (severe pain with restricted ROM and inability to perform ADL).
- Female patients had poor compliance to treatment protocol.

Nursing Considerations and Significance of the Study:

The study has provided following inferences

- Early initiation of intervention can provide good Pain Relief and improved ROM for patients with Periarthritis Shoulder.
- Educating Patients about the Condition and importance of Early intervention including exercises can improve the Patient's Quality of living.
- Educating patients who are receiving IA Corticosteroid injections, to Strictly adhere to Exercise regime and SWD for better outcome can contribute for a better patient Outcome.

Clinical Implementation

Based on the Study inference,

- All Patients receiving IA Corticosteroids were given education about the significance of Exercises and SWD in the improvement of patient condition.
- All Inpatients above 45 years of age were taught Shoulder exercises as a preventive strategy and the importance of reporting early if they encounter symptoms of Periarthritis Shoulder.



MANAGEMENT OF POST DURAL PUNCTURE HEADACHE

Post Dural Puncture Headache is classically Fronto-Occipital and is often associated with neck stiffness. Sometimes the pain radiates to both temples, may be felt behind the eyes, or is more diffuse than localised. The headache typically has a postural element, with the pain exacerbated by sitting or standing and alleviated by lying flat.



90% of headaches will occur within 3 days of procedure and two thirds within the first 48 hours . However, it can develop up to 14 days of the procedure, or very rarely, it can occur immediately.

Duration Most cases of PDPH will resolve spontaneously within 7 days if left untreated . In a minority of patients, the headache can persist, occasionally to years.

Diagnosis Symptoms of a postural headache and a history of dural puncture are usually sufficient to make a diagnosis. If in doubt, additional investigations such as MRI may be needed to confirm the clinical findings and rule out other causes of headache. MRI scanning of the brain may demonstrate evidence of reduced CSF pressure. Myelography or thin-section MRI can be used to locate the source of the CSF leak. Doppler ultrasound reveals higher flow velocities in cerebral vessels in patients with PDPH.

Conservative Management Aims to relieve symptoms while waiting for the dural tear to heal by itself, or to seal the puncture with epidural blood patch. This may be enough for mild cases of PDPH. It includes:

1. **Posture :** There is no evidence to support bed rest or specific postures following PDPH..

2. **Hydration :** Although there is no evidence to support the therapeutic effect of vigorous hydration, no patient with PDPH should be allowed to become dehydrated and adequate fluid intake should be encouraged.

3. **Simple analgesics :** Regular paracetamol and NSAIDS (if not contraindicated) may be enough in mild cases. A weak opioid such as codeine, as required, is usually needed as well in moderate and severe cases.

4. **Other pharmacological treatment :**

a) **Caffeine** Since PDPH results in part from dilation of the intracranial veins, caffeine, a cerebral vasoconstrictor, has been found in some studies to be an effective therapy in some cases.

It can be considered for treatment of PDPH where simple analgesics are ineffective. The dose recommended for PDPH is 300-500mg oral or IV once or twice daily. Caffeine containing beverages such as coffee, tea, coke, and red bull can be suggested to patients as an alternative to medicated caffeine. The average caffeine content of these drinks are as follows:

- A 200 ml cup of brewed coffee : 160mg
- A 200ml cup of instant coffee: 120mg
- A shot of espresso: 100mg
- A cup of tea: 40mg A can of red bull: 80mg
A can of coke: 35mg

b) **DDAVP** Was found to be ineffective in treating PDPH following LP

c) **Sumitriptan** A controlled trial found no evidence to support the use of Sumitriptan, a 5HT1D receptor agonist, in the treatment of PDPH .

d) Epidural saline / Dextran 40 Trials showed that compared for EBP, they did not demonstrate any long term efficacy.

Epidural Blood patch

The high success rate (68-90% after first patch and 97% after the second) and the low incidence of complications have established it as the definitive treatment of PDPH. EBP in the first 24 hours after dural puncture has a lower success rate and a higher risk of bacteraemia, and therefore not recommended. Prophylactic EBP is also not recommended. Procedure and aftercare.



- 1.** A written, informed consent should be obtained
- 2.** The patient is advised to pass urine before the procedure as she will have to remain flat in bed after the blood patch for a period of time.
- 3.** The procedure is preferably carried out in the lateral position to decrease CSF leakage and thus dilution of the injected blood.
- 4.** As blood injected into the epidural space predominantly spreads cephalic, the anaesthetist should thus locate the space a level below the supposed Dural puncture. If not possible, the same level of the puncture is used.

5. Once the space has been located, the anaesthetist withdraws 2 samples of blood (2x20ml syringes) from a suitable vein which has been prepared with antiseptics and raped. One sample is to be injected into the epidural space while the other is to be sent for blood culturing.

6. Blood should be injected into the epidural space slowly to a maximum of 20ml via the Tuohy needle. If pain in the back or paraesthesia in the legs is experienced by the patient during the injection, temporarily stop and then continue when symptoms have disappeared.

7. An immediate relief of symptoms may be experienced by the patient due to the injected blood exerting a mass effect, and thus increasing the CSF pressure, before a definitive clot has been established.

8. If the first blood patch is ineffective, or initially effective but the headache recurs, a second EBP would be normally offered.

9. Following procedure, the patient should be encouraged to lie still for two hours.

10. While an inpatient, it is prudent that the patient is regularly assessed.

11. As far as possible, the patient should be advised to avoid straining, lifting heavy objects, or excessive bending for at least 48 hours after the procedure.

“ TRIUMPH IN THE BATTLE - OUR STORY OF FACING THE PANDEMIC.!”

“ How We Battle Our Struggles determine who we are ” - David Weatherford

COVID 19 has been declared as a global pandemic by WHO and a National Disaster by the Ministry of Home Affairs vide Railway board letter 2020/H-1/7/1. Keeping all safety measures in consideration, a separate isolation ward has been created at the Divisional Railway Hospital Ponmalai to deal with suspected [COVID-19 cases](#). The ward was equipped with necessary protective gears on **MARCH 05, 2020**.



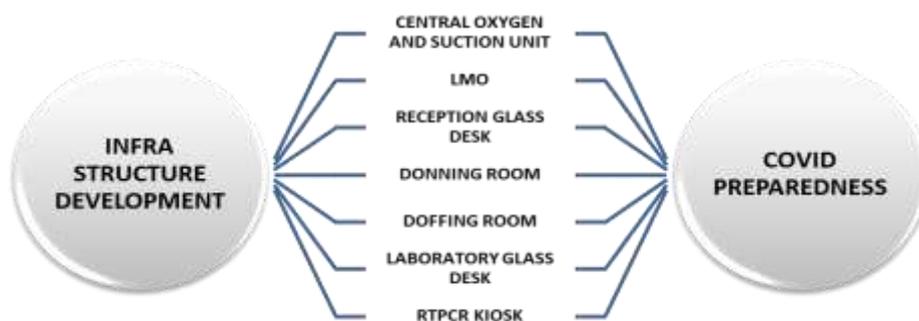
As per the Instructions from GM/SR, PCMD/SR and DRM/TPJ, CMS/ RH/ GOC have analysed the needs and the requirements at Divisional level and executed as per the guidelines issued by the Ministry of Health & Railway Board to treat Covid-19 cases. In this view, a **COVID-19 TASK FORCE TEAM** was formed by **Dr.R.Soundararajan** CMS/ RH/ GOC headed by **Dr Bhaskaran** ACMS /RH/ GOC.

The proceedings were co-ordinated by a team of experts including medical officers, ANO, AHO, APHO, CNS and other subordinate staff at their respective level.

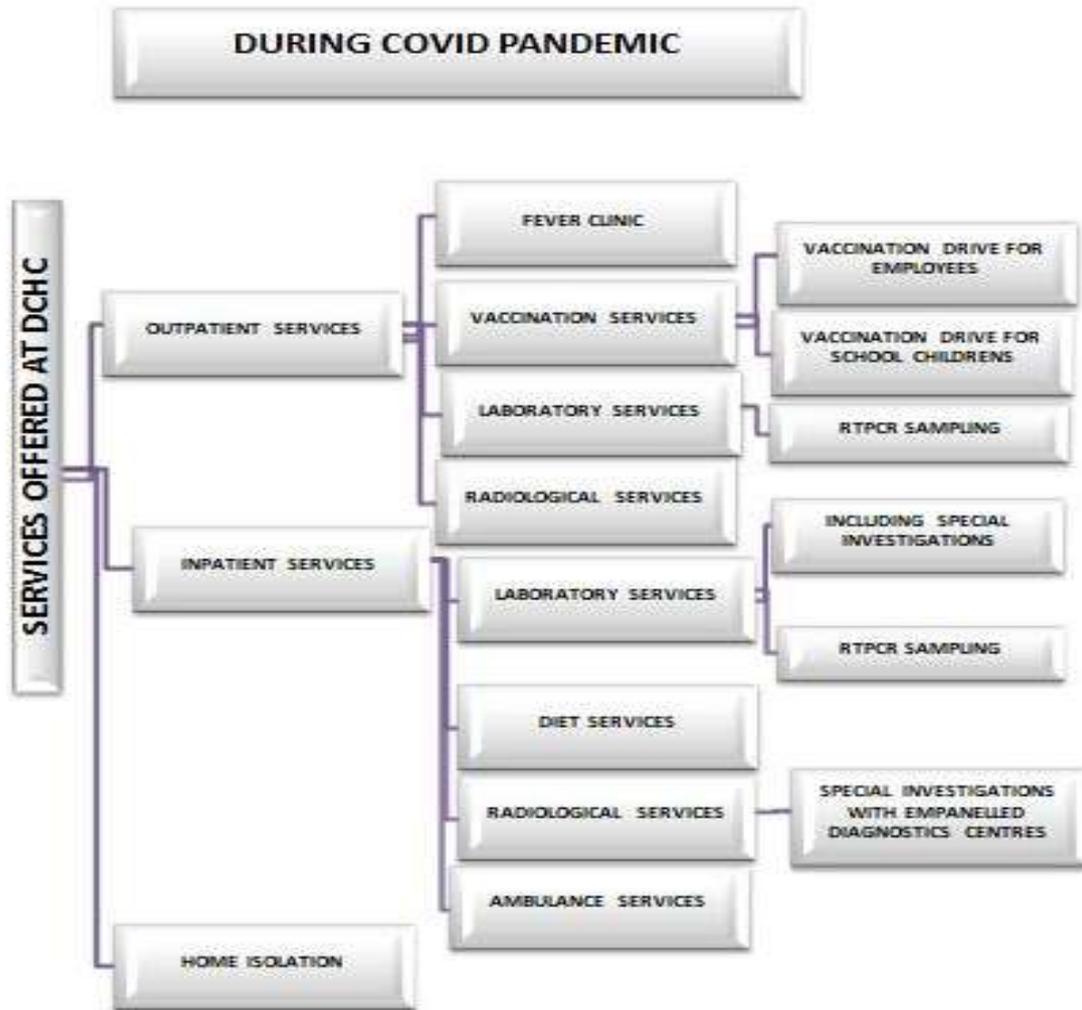
Covid 19 preparedness:

110 beds were identified at Railway Hospital Ponmalai as a primary step. Alternative care sites were also identified and Emergency Preparation Alert was made in the entire Tiruchirapalli division.

Infrastructure Development:



Services offered during COVID Pandemic

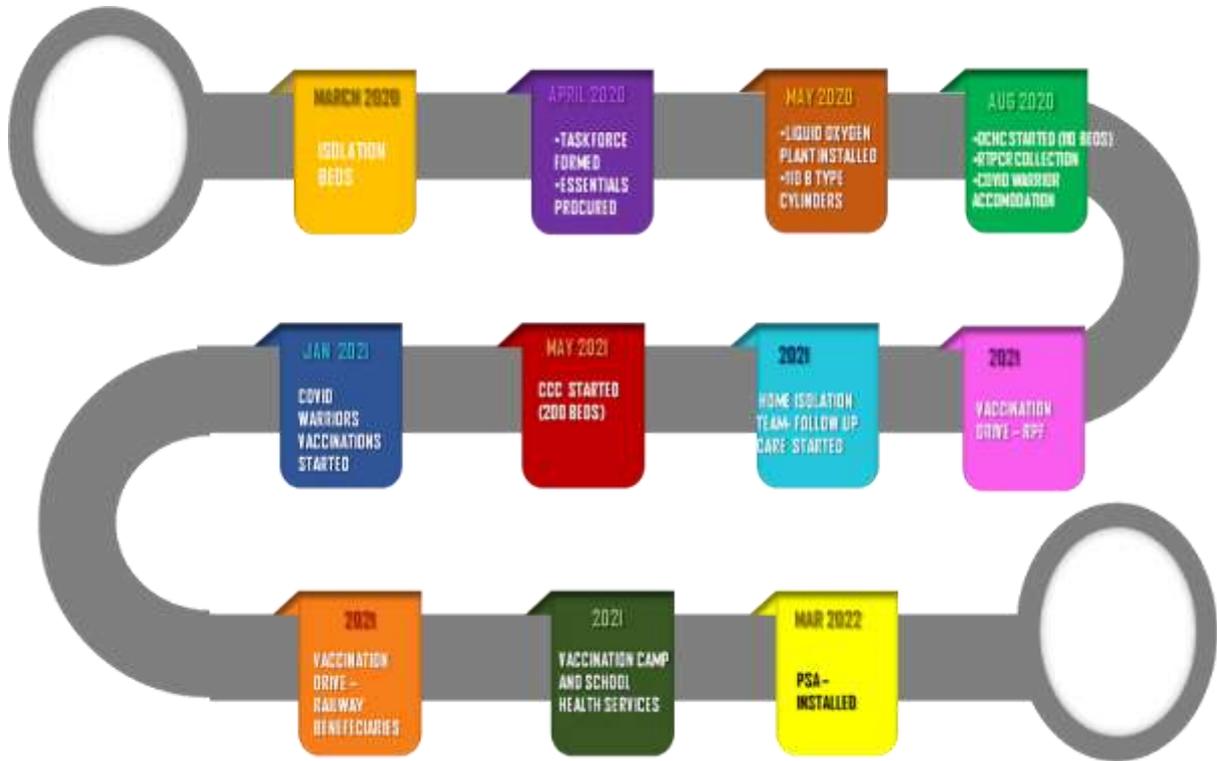


Accommodation & Food services for Healthcare Workers (Covid Warriors) :

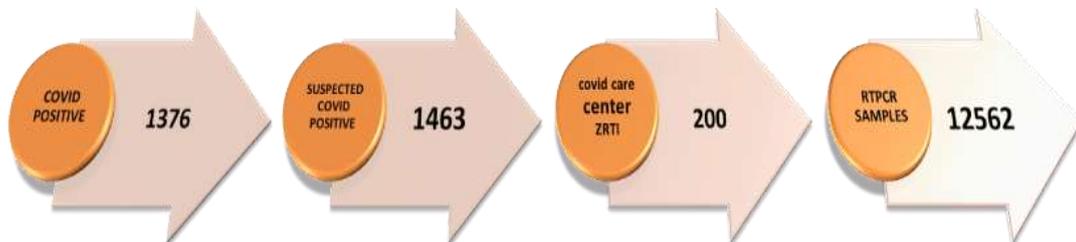
Under the guidance of DRM/TPJ and CMS/RH/GOC, the accommodation is made available at ZRTI, Hostel - 4. 58 individual rooms for quarantine of Covid Warriors along with food for all Healthcare Workers including Contract Medical Practitioners, Nurses and other Contract Paramedical staff as they would not be permitted to go to their homes during the duty period in view of the high infectivity of COVID-19 vide Lt no MD/52/COVID19/2020 dt 08.04.2020. Staff vehicles were also arranged for the transport of Healthcare Workers (covid warriors) for duty from HOSTEL /ZRTI/TPJ to RH/GOC.

- COVID WARRIOR ACCOMODATION
- PERSONAL PROTECTIVE EQUIPMENTS
- STAFF VECHILE
- INFECTION CONTROL

COVID PANDEMIC- TIMELINE



As on March 2022, We have treated 1376 COVID positive patients and 1463 Suspected COVID patients in-patients and screened 12562 patients successfully.



COVID STORIES

Battling against the Pandemic ..!



During the Covid-19 pandemic I was managing the manpower of Non Covid Units besides my responsibility of Diet and Linen maintenance of Non Covid and Covid-19 patients. We had to plan a Well-balanced diet to ensure early recovery of Our patients who were positive for Covid 19. Our Meal plan was precisely made to meet their nutritional demand and We never failed to listen to Our patients' comments for the same and altered Menu were provided to treat Our patients' taste buds and remove monotony. I must say Our team excellently worked under

Our guidance, listening carefully and executed Our plans periodically. It was not an easy job though, but I had self-satisfaction for the work, because Many Patients reverted back to Us Saying Thanks for Our efforts to make them feel at ease, especially for the Diet.

Maintenance of Linen for Covid and Non-covid Unit demanded extra vigilance to segregate them separately and treatment of Linen used in the DCHC unit with a disinfection protocol, enabling it to be handled by House Keeping assistants. I have organised teaching sessions for HKAs for this cause and have constantly been behind them reminding them, the importance of protecting themselves to prevent Cross infection. I can proudly say We have done it properly with no flaws. I have maintained the supply of manpower for DCHC and conducted COVID VACCINATION AWARENESS Campaign for Out Patients, motivating them for Covid-19 Vaccination.

Now, turning back to those days, I am surprised to know that We have fought a good battle at our level and contributed for patient welfare - The Heart of Our profession. I thank God for enabling Me to perform my duty at best.

Mrs. Geetha Devi

CNS/RH/GOC

The Unforgettable Period of Life..!



During a pandemic where the number of casualties are high, having a smart and swift Ambulance team is very essential for saving lives. When I took Over Charges of Maintaining Transportation Services, I knew it would be harder.

But in reality, the situation was even more difficult than I expected. It meant a lot to make ends meet. It needs not only swift transportation but also vehicle disinfection after every patient trip and adequate training for the Ambulance workers on self-protection were all demanded.

Sometimes patients fell sick before the Ambulance returned from the previous trip where we had to work quick arranging for the state government's Ambulance without opting for any delay. Many such patients reverted with a "THANKS" note for the passion we had in saving their life and that's the success I owe.

I can also proudly say there was no life lost during all trips. I can't deny that it is a Department full of internal tension. But the happiness I own counteracts all my pains. I can call this "The Unforgettable period of my life.

Mrs. Revathi Natarajan

CNS/RH/GOC

Experienced a new endeavour ..!



I am Mrs Usha Vijayakumar, CNS operation theatre, having 30 years of experience. I was allocated a portfolio of “statistics and data maintenance”. Dr Bhaskar ACMS headed the team and I am performing my role as an Executive leader, managing the data from 03.08.2020 and still pulsing on working without ceasing.

When I went to the District collectorate JD office, Trichy to get data sheets and gain necessary training about the statistical work, initially I felt like pushing a mountain because It was completely a new work for me not related to my present responsibility. but after working on it I found the importance of the department and knew I had to Push hard to do justice for the Trust of the administration. I have maintained both state government Google spreadsheet and covid-19 India Portal facility admission, and Hospital statistics.

To make this work, I had to work 24*7 since the pandemic has begun and I had to pay a great price for this. I found it very hard balancing my Home Responsibilities with the Official Responsibility because we can entertain no delay in data entry. There were times I have to work online at midnight because of Server Breakdown. Many a time I was mocked by my Spouse and Children for my Odd time play for the Work.

Over and above everything, I have also worked in the DCHC Unit delivering patient Care. Apart from which I have also performed my Ward responsibility with no compromise including Surgical assistance, Account maintenance, indenting etc. keeping Our operating Theatre always alive for performing Emergency surgeries at any time of the day. And I am happy that I have done my best.

Mrs. Usha Vijayakumar CNS/RH/GOC

Uncomparable voyage against the Pandemic..!



Life in a pandemic is something which our generation has not experienced. It was really a tough situation demanding all my resources at the same time and we the womenfolk generally face multipronged demands from the family, society and workplace. I was assigned the task of procuring and supplying consumables and non-consumables for the COVID & SARI ward, which ranged from PPE's, medicines, machineries etc. Being a Government Organization we had our own constraints in procuring the above mentioned items. At times temper would flare up between the personnel responsible for procuring, stocking and end users.

Being in-charge of procuring the above, my responsibility invariably did not end with my shift timings. On a daily basis I used to get phone calls from my co-staff about the availability of the consumables. Many a time, calls would come at very odd hours for the above items.

Uninterrupted and timely supply of medicines & non-consumables helped the COVID Warriors deliver very good care to the COVID patients. My task did not end with procuring & supplying of the above mentioned items, but it lasted till proper accounting was done for each and every material. My responsibilities also included ensuring that all the gadgets and machineries were in good working condition.

At the end of the day, when I recall the work done by me, it really looms large and I really wonder, how I discharged my duties efficiently. I thank God almighty for giving me the courage, strength and will power to achieve this formidable task.

I extend my sincere gratitude to all my superiors, co-staff and subordinates for assisting me to perform my duties in a very efficient manner. My special thanks goes to our Sr.DMO/Stores/RH/GOC for timely management of all the consumables & non-consumables. My family members were very understanding & supportive for me throughout the pandemic period which made me to discharge my duties very efficiently and effectively.

The entire job was a team effort, for example, during my rest days my colleagues would step into my shoes to keep the wheels of the hospital run smoothly.

Mrs. S. Sharmila CNS/RH/GOC

Patient Satisfaction achieved..!



Decades Mark's an outbreak we are fortunate or unfortunate to witness this Novel Corona pandemic. Of my 29 years' service in Railways, I have not witnessed any deadly spreading disease as Corona. Doctors, psychiatrist and nurses on the frontline tackle the exponentially increasing Covid cases and its many effects on the mental health of the community.

The recommended measure of social isolation gives the best results in fighting the epidemic. We nurses advice the same to all. Protocols relating to social distancing, frequent handwash and wearing of facemask are being strictly followed and advised by all staffs in our hospital, so that we can limit the dreadful corona to a certain extent in our Railway areas.

Hundred and ten beds have been allocated for Corona. Of these beds 55 for Covid positive patients and 55 for Sari patients. Donning and Doffing rooms and pathways were separately arranged. Same for Covid and sari patients as well. High protein nutritious diet at right timings with health drinks that were patient appealing. Patients were well satisfied with the care rendered.

Mrs. Francina Chitra CNS/RH/GOC

Fighting against the Pandemic..!



With Loads Being a healthcare worker, for the past 28 years I have never gone through such a distressing situation which has made many changes in my life. My role as in-charge of the outpatient Department and covid care nurse was full of hurdles and hardships. It demanded herculean exertions for making the Department free from Contamination. I faced trouble in maintaining social distancing, organising, screening, reinforcing hand hygiene and wearing a mask among our clients visiting the OPD.

We took it as a challenge and succeeded in creating an infection less environment in our Department. As a frontline worker, to be in the midst of people risking our lives and our family was very tough. Yet we rendered safe and dedicated service with team spirit to win patient satisfaction despite various hardships. I'm very grateful to all my team members, administration and family for the support rendered.

Mrs. Shakila begum CNS/ RH/GOC

Facing the Storm..!



Though COVID as a disease initially seems to be intimidation to us, we took it as a challenge and rendered our service as a staff and on humanitarian ground risking us and family. But work we carried out, rendered us inner satisfaction. We rendered service, when the name COVID itself spreading shivers in the sprain with lot of passion round the clock. Staffs are the FACE for the covid stricken patient as even the Near and Dear are afraid to come close to help them.

What all the pains we underwent when we treated COVID patients (wearing special dress, bathing 4 -5 times, staying away from the family, irregular food timing, improper sleep) all went out of our mind when we think of our service we alone can render for this patient.

I am politely submitting my great gratitude to the Almighty and management for allowing to work for this kind of patients in this time.

Mrs. V. Sowmya Srinivasan CNS/RH/GOC

Stronger and Better with the Pandemic..!



What we expected to be a great year had unfortunately turned into one of the tough years witnessed by mankind. The ongoing pandemic has affected a lot of people in many ways. I have been serving as a health-care professional at the Railways for 21 years now. It is our responsibility to take care of the patients. Although COVID-19 has made this challenging, through weeks of hard work and perseverance, we have adapted ourselves to the new-normal efficiently and have given the best for the well-being of our patients.

I reckon COVID-19 has only made us stronger and better. It has prepared us for tackling any unforeseen circumstances. I'm extremely grateful for the continuous support from the administration and I deeply appreciate the efforts of all the dedicated health-care workers who were in this together.

Mrs.Kokila .S CNS/RH/GOC

From Lifestyle to work style—experienced a new dimension ..!



Initially, COVID-19 was panicking me and my family members. But as days went on, it has created a new perspective of my life and Initially, COVID-19 was panicking me and my family members. But as days went on, it has created a new perspective of my life and prepared me to a new level. Repeated duty in covid unit led to various health issues like skin irritation, dehydration, desaturation with headache, acidity, vision issues, sleepless nights, urinary tract infection and even respiratory distress. It was devastating. But, considering the patient care, I coped up.

I have updated my knowledge, and learnt novel approaches. As a whole, I have learnt to balance the benefits and harms of COVID-19. Finally, this struggle has I have updated my knowledge, and learnt novel approaches. As a whole, I have learnt to balance the benefits and harms of COVID-19. Finally, this struggle has strengthened me from lifestyle modification to work style modification; From difficulty to the development of a new level of life.

Mrs. Ramya SNS/RH/GOC

Proud being a Covid Warrior..!



It makes me feel proud to be a **Covid Warrior** as I was actively involved in direct patient care during pandemic SARS-CoV-2 for serving the railway population. Though I worked two decades in railways, this work experience taught me many new things. Apart from direct patient care, I had a chance to involve myself in coordination of various tasks at DCHC Ponmalai as a team member. New alternatives are being introduced in preventing fomite transmission which is a big challenge during this epidemic.

Digital technology typically involves the use of the internet and mobile phones. The digital health initiatives include managing inpatient data, inventory management etc.,

A spark created by our administrator seeded me, and my colleagues to utilise the existing resources - the internet, Cloud storage as a tool for patient data management and inventory management. This plays a vital role in preventing risk of fomite transmission.

Mobile phone technology on the other side helps our doctors team for real time monitoring of the patients and attending their needs with the guidance of clinical experts from outside.

The changes that all of us adopt with dedication and devotion of duty take us to the next level of COVID-19 management and manage the situation at ease.

PPE kits and quarantine days separates us from family and friends. Though it gives us a tough time leaving our family and friends during this pandemic, the smiles on patients faces makes me proud to be a Nursing profession.

Mr. K. Ramachandran SNS/RH/GOC

Rediscovered a Newer Version of Me..!



“Humans have always had their own ways to cope with disaster and literature and poetry have always been born out of great suffering,” says Bhaskaran Bara, artist, writer and poet.

Yes, While stepping out from a chaotic COVID era, all the lessons that I learned throughout the last few years were the most powerful stories now, which can mold me into a much stronger person for any upcoming tough times and lead me to overcome the ironies of both personal and professional life. After crossing many events, witnessing dozens of losses and bunches of hopeful recoveries; still memories draw pictures of beginning days wrapped in vague hues of fear to face at and determination to fight against the deadly disease.

First step is the crucial step for everyone to get started, and I chose this "first" to be posted as a COVID warrior in the first batch itself, though my mind was filled with utmost fear and anxiety, I prepared myself to work in the frontline to serve the mankind and save the society from dragon hands of SARS-CoV-2.

I am not only a medical professional but also a mother. I live with my kid, whereas other family members reside in another state. So I had to step up and be both a front-line warrior against Covid-19 and a mother afraid to leave her child all alone as well as being near her for all her needs after a close contact with this deadly virus.

Of course, it is a challenging task to balance professional and family responsibilities together in such a pandemic time, I admit that, "I am glad, I could perform both my personal and professional duties like a warrior".

Mrs. S. Sruthi NS/RH/GOC



A New dawn to bloom...!!!

Mrs. S. Sruthi, NS/RH/GOC

The world shrinks in its own walls,
Ticking needles proffer fairy recalls,
Walking up to the dawn seems too far,
Taking fresh air simply turns to fear,
Mourning murmur echoes in corner,
"Is this curse gonna even be a war??!"

Borders ain't a check to these germs,
Caste and creed owes no part in plays!
It's a deadly virus, demon of deaths,
Total life is crippled in its sheaths!
What the books says, COVID, its name,
Alas! notorious for its pandemic norm!
Shut doors, and fastened windows,
Total cheers gonna scream as bees!

Breaths wrestle to feed each lungs,
Lungs scuffle sans any success!!
Rising temperature, hacking coughs
Falling saturation to meet oxy-needs.
Treating symptoms draw few marks,
Still, the monster snatched many lives!
What it matters is, "to fight or leave"??
Must we choose, "should fight to live!!"

Fiery summer, endless torrential rain..
Nothing shatters this deadly chain..
Oh! All it sows, is full-fledged pain,
Here we need some chase to win!!

"Go back Corona, Go away, soon Go!!"
We're here, to kill your brawny Ego!!"
Wearing masks, scouring in sanitizer,
That's what all to be dwelt in ear!
Keeping meters of distance with fair!!

Though we miss caring own menages,
Though tight masks paints scars on face,
Though at high risk to be engulfed,
Though the society puts in a stigma,

We 'The Health Team' is ever here
ready
To fight always in the front-line,
steady!!

"We won the half, on the field of
gloom...,
A new sun marks its time to bloom...!!!"

✍️ **Sruthi....**



IT'S TIME WE BID COVID ADIEU..!

Mrs. I. Nancy Caroline, SNS/RH/GOC

**Sparkling blue Sky grew Dark Above
Appalling Gloom fell on Earth below**

**A War Declared - Unforeseen
Against the adversary Unseen**

**No Clue Of safety
No sign of Smile**

**Faces Filled with Ugly scars
Made by Brutal facemask wars**

**Wash-Wash-Wash
Is the trending hash**

**Blinking eyes seen all around
Countenances could not be found**

**Smiles hide behind 3 ply on face
Inhuman pathogen kills the race.**

**No more Funs; No more Chills.
No more Laughter & Joy thereafter.**

**Grumbling minds filled with agony
Lack of peace killed more than the
Enemy**

**Human Souls drown in despair
Love and affection became a
nightmare**

**Fear of Covid - spread a Vile
And Every Hope - turned Futile**

**But with troubles, we are reset
Hand in Hand, Pulled off the Upset**

**We Seemed like failing,
Falling, Still Fighting**

**Standing up straight
Never Giving Up the Fight**

**Looking sharp at the light
The ray of hope in blinding night**

**With Heads High up to the Finish.
Challenges in the strife –We Relish**

**We see through it - A Sweet Tomorrow
That fills Us with Joy - lasting
Unborrowed**

**After today
All evil at bay.**

**Kissing the fruit Of hope
Touching the Gleam of faith**

**That will Never be dimmed by
These Grey Clouds again.**

**We have made through it all
And So Let's Shout and Call**

**The Story of Our Struggle - an
Admiration**

**The Victory won in Proclamation - and
This Triumph Of Victory – an Adoration**

Good Bye COVID-19..!

APPENDIX

GLIMPSE OF PAST YEAR EVENTS



DIVISIONAL RAILWAY HEADQUARTERS HOSPITAL
DILI, DEMAKA
MEDICAL & DENTAL CLINIC



DCHC



OPD



Non COVID

DIVISIONAL RAILWAY HEADQUARTERS HOSPITAL



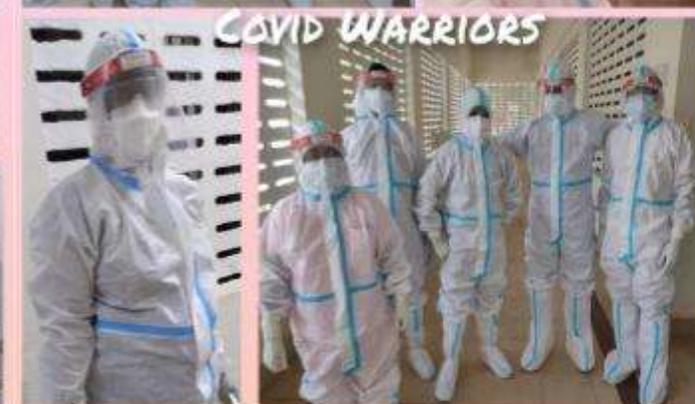
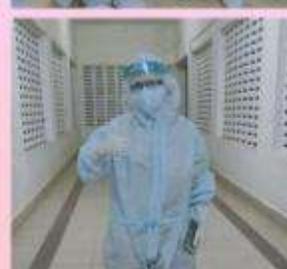
COVID WARRIOR ACCOMODATION



DISINFECTION



NON COVID + ADMINISTRATIVE WING

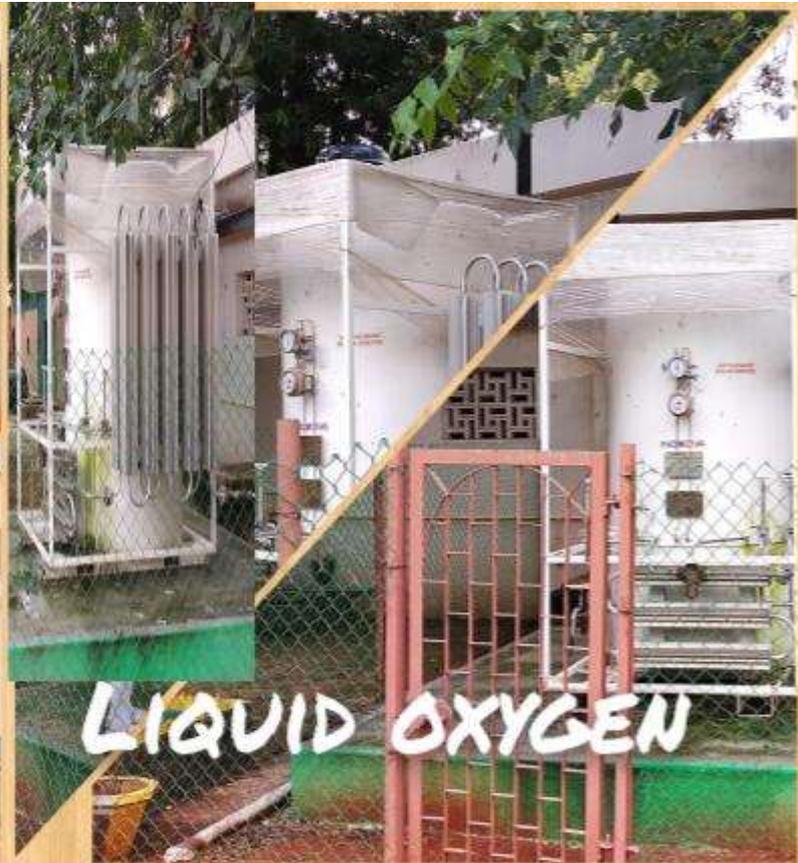


COVID WARRIORS

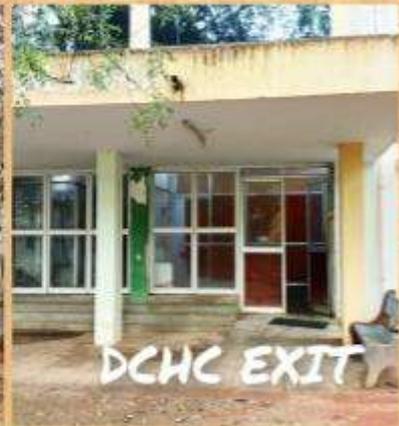




DCHC ENTRY



LIQUID OXYGEN



DCHC EXIT



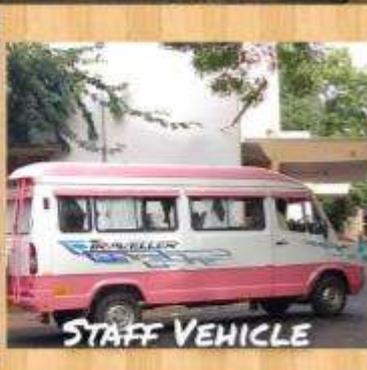
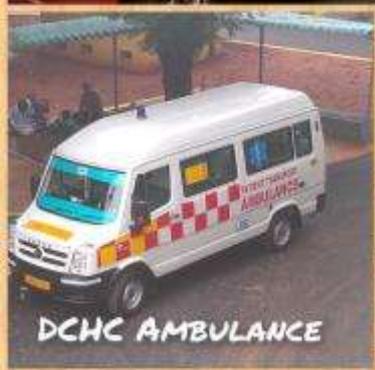
DCHC AMBULANCE



CENTRAL SUCTION



CENTRAL OXYGEN MANIFOLD



STAFF VEHICLE



VIDEO LARYNGOSCOPE



DCHC PONMALAI





MORNING BREAKFAST FOR COVID-19 INPATIENTS



MORNING BREAKFAST FOR COVID-19 INPATIENTS

LUNCH GETTING READY FOR COVID 19 PATIENTS

RENOVATED KITCHEN



NON COVID SERVICES



OPERATION THEATRE



DISPENSARY, STORES & ONLINE MEDICINE SUPPLY SYSTEM



LABORATORY SERVICES



**ANGARA RAILWAY HOSPITAL
PONMALAI**

THERMAL SCREENING FOR EMPLOYEES





GLIMPSE OF 2021



GM-SR 2



COVID WARRIORS



Best family welfare centre award 2021



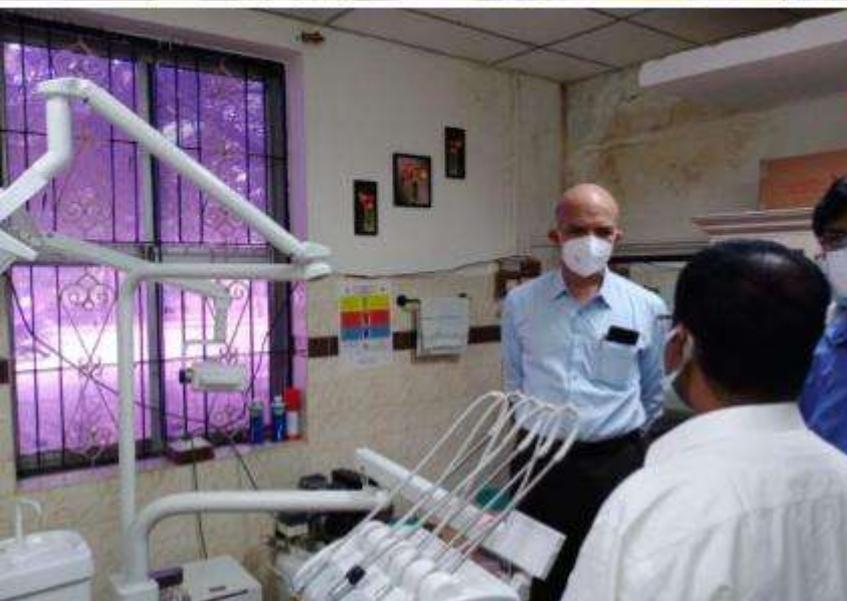
PULSE POLIO PROGRAM 2021



DIVISIONAL RAILWAY HEADQUARTERS HOSPITAL



DG/ RHS VISIT



13/03/2022

