Basic Certificate in Palliative Care

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Week-08

Lecture 03: Respiratory Symptoms Management - Part I

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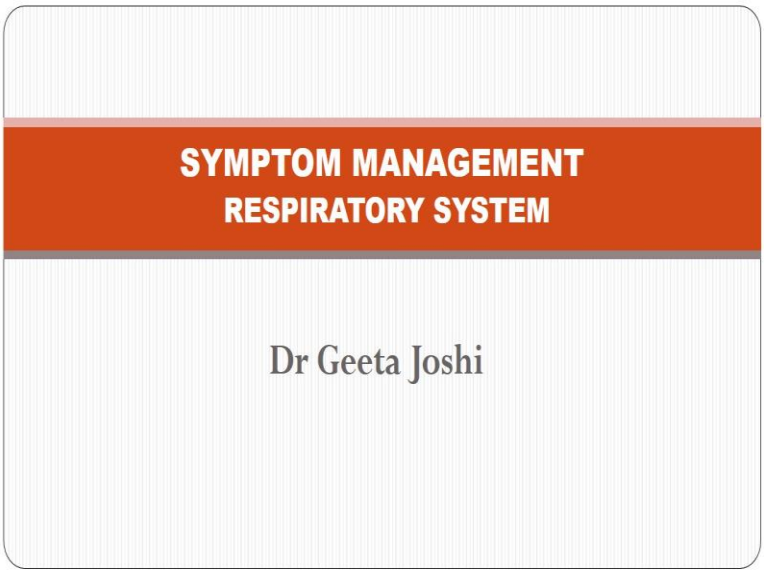

Namaste (Hindi word meaning greetings), this is week 8 lecture number 3. I am going to talk about symptom management in respiratory system. As we discussed earlier symptoms are very common in palliative care patients and if they are not relieved patient remains in distress is it increases their suffering and it affects their quality of life.

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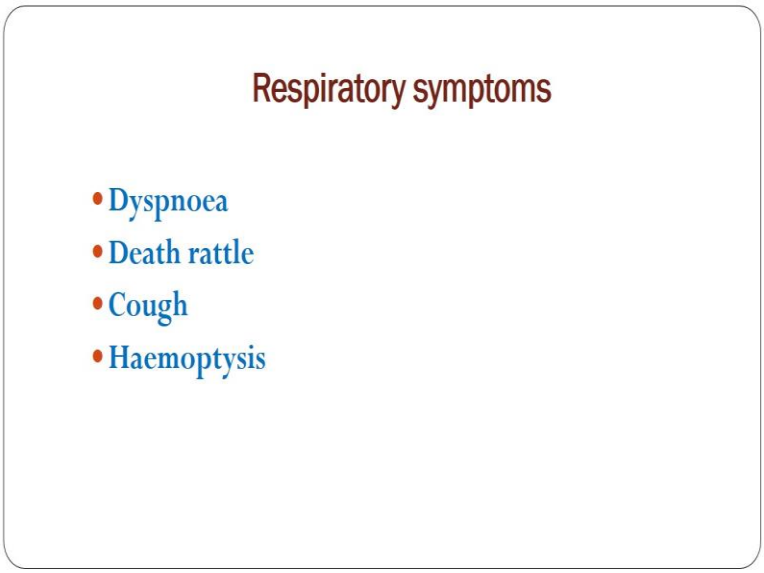

In a respiratory system we will be talking about management of dyspnea, management of death rattle, cough and hemoptysis.

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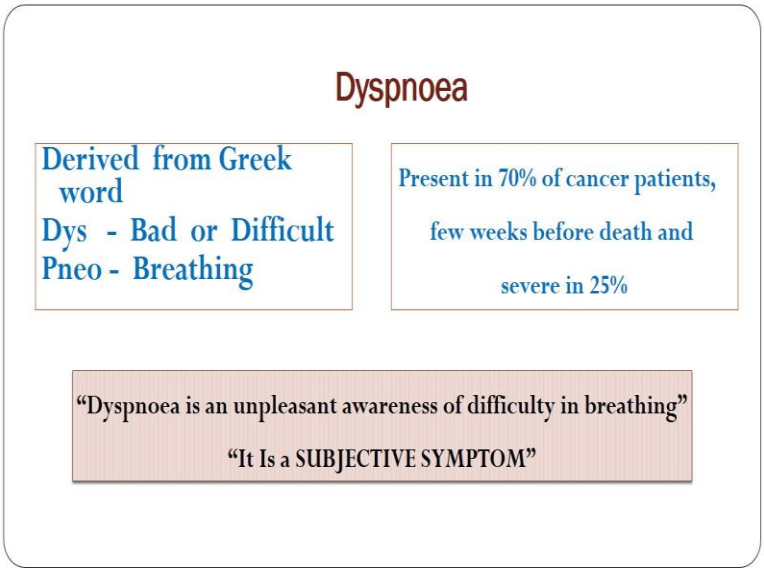

Dyspnea is the word derived from Greek language, dys means bad or difficult and pneo means breathing it is a bad breathing and almost 70 percent of the cancer patients has dyspnea few weeks before death and very severe dyspnea in 25 percent of the patient has

been reported. It is an unpleasant awareness of breathing and causes difficulty in breathing and it is a subjective symptoms.

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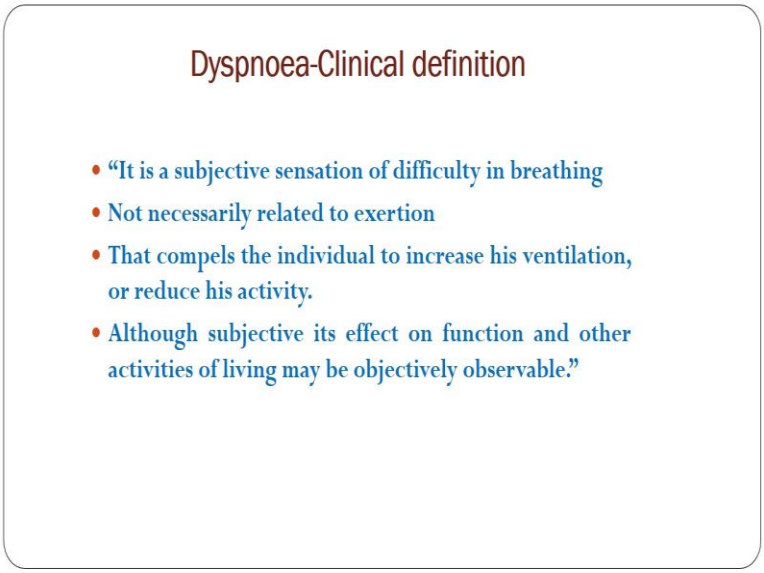

One can define dyspnea as it is an subjective sensation of difficulty in breathing not necessarily related to exertion. Patient may feel dyspnea at rest even if he is lying in bed he will be dyspneic, he will be having difficulty in breathing and it increase, it compares the individual to increase his ventilation and reduce his activity. Although subjective its effect on function and other activities of living may be objectively observed. You can see that if a patient is in dyspnea he cannot walk up to the bathroom after coming out from the bathroom he becomes more dyspneic, more breathless and very so much in distress.

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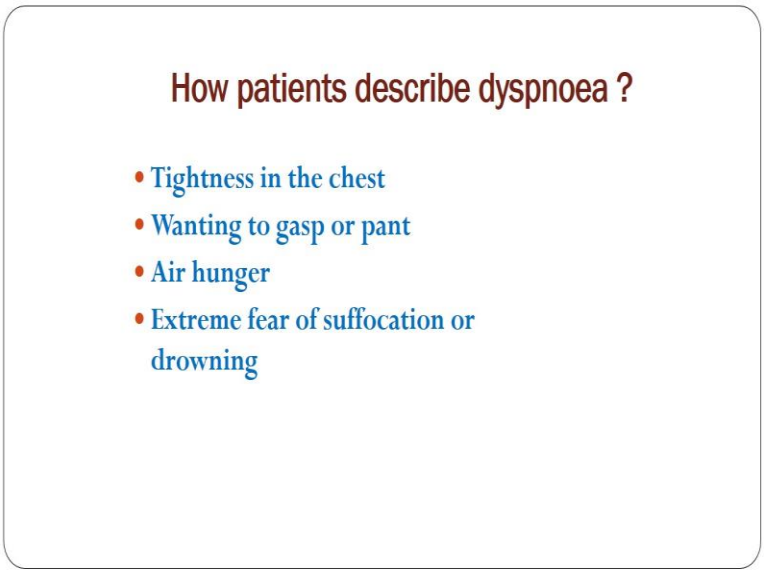

How patient describes dyspnea? He will say there is a tightness in my chest, he will say that there is a air hunger I am not able to breathe enough and I become breathless, air hunger is there and there is a feeling of suffocation and drowning.

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There are two types of dyspnea. Intermittent dyspnea which is precipitated by exertion at rest patient is fine sitting, talking, lying down in bed is fine. As soon as he goes to bathroom or goes out and have a small stride and comes back he becomes breathless like

on walking, bending or even just by talking also they become breathless. And sometimes at dyspnea at rest also in few of the patients and this causes lots of anxiety because patient feels that even if I am taking rest I am not able to breathe properly and that causes panic attack and patient feels that now death is approaching. I am about to die because he is not able to breathe enough even at rest.

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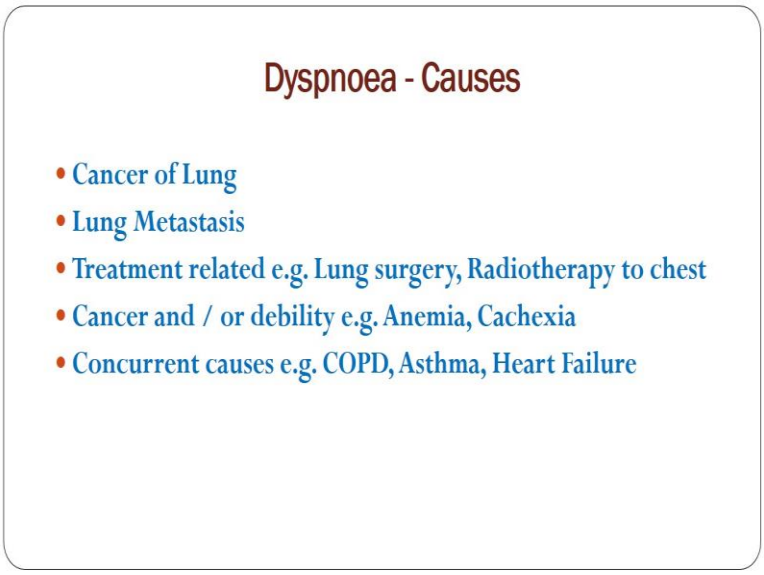

Few causes of dyspnea describe over here mainly they are related to lung or heart. Firstly cancer of lung and lung having metastasis because of other primary cancer somewhere else. Then lung related surgery where half or full lung is removed and all such thing. Radiation given to the chest will cause fibrosis of the lung and muscles will atrophied and that can give dyspnea.

Another cancer related problems like low hemoglobin anemia or cachexia will also cause dyspnea. Patient cancer patient might have other concurrent disease like COPD that is asthma, heart failure etcetera and which can give dyspnea.

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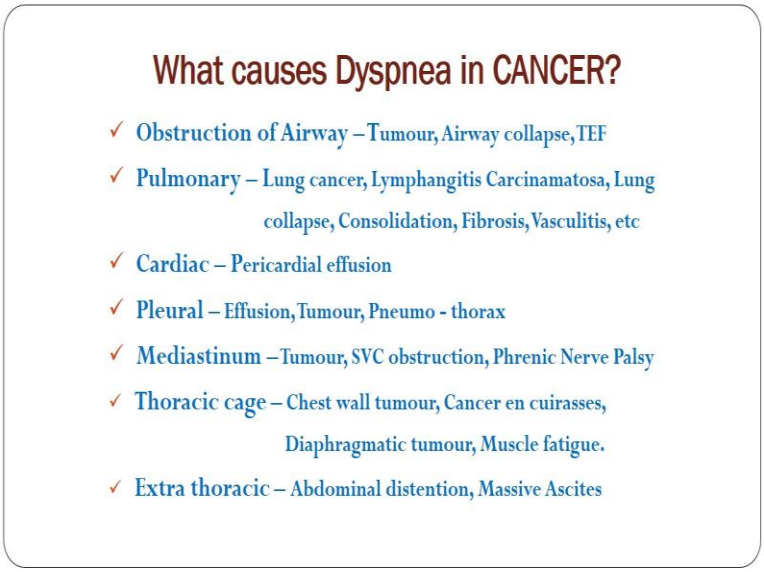

What causes dyspnea in cancer? Firstly obstruction of the airway because of the tumor or airway collapse or tracheoesophageal fistula which causes dyspnea and air hunger. Other pulmonary causes are lung cancer, lymphangitis, carcinomatosis, lung collapse etcetera and consolidation. Cardiac problem which causes dyspnea or pericardial effusion, pleural problem causing dyspnea or pleural effusion, tumor in the pleura etcetera. In mediastinum between the two lungs if there is a tumorcausing pressure on the large vessels of the heart and phrenic nerve palsy that can give dyspnea. In thoracic cage suppose there is a tumor outside the chest or on the chest wall and it cancer and diaphragm on diaphragm cancer or tumor in diaphragm and muscle fatigue that will cause dyspnea and extra thoracic. In abdomen there is a huge tumor which is causing pressure on the diaphragm and patient is not able to breathe properly.

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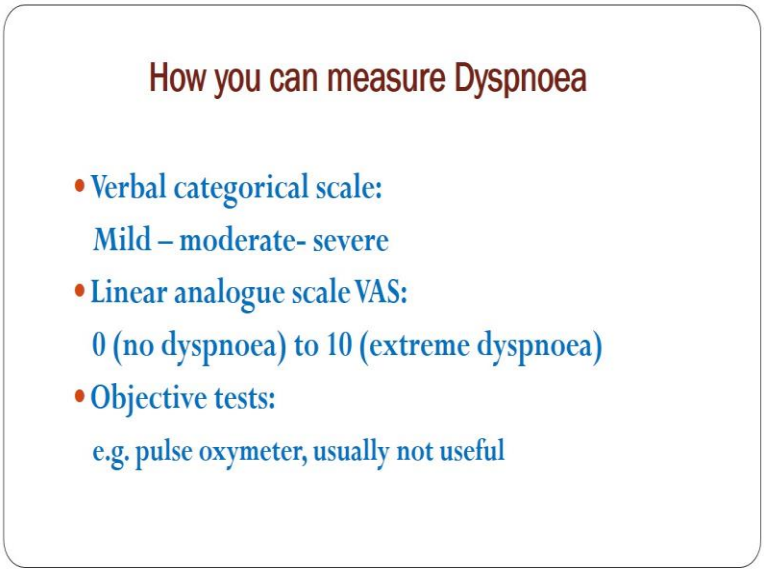

How can you measure dyspnea? On by asking patient or by verbal rating scale you can see it is mild, moderate or severe or by on a vast scale where 0 number is no dyspnea and 10 number is extremely extreme dyspnea and patient can put the mark on this line and say how much what is the score of his dyspnea. Other objective test by measuring pulse oximeter peripheral oxygen saturation usually it is not reliable because many other factor also affects oxygen saturation in pulse oximetry.

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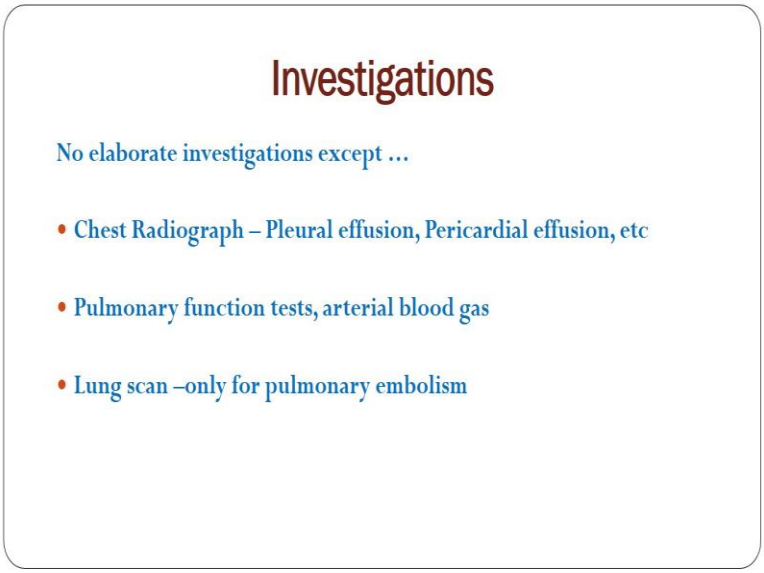

When patient is in dyspnea there is no need to undergo very elaborative investigation. Sometimes chest x-ray will be helpful to rule out plural effusion or pericardial effusion. Pulmonary function test can be done or arterial blood gas analysis and lungs can only for to rule out pulmonary embolism then and to treat it effectively this is required.

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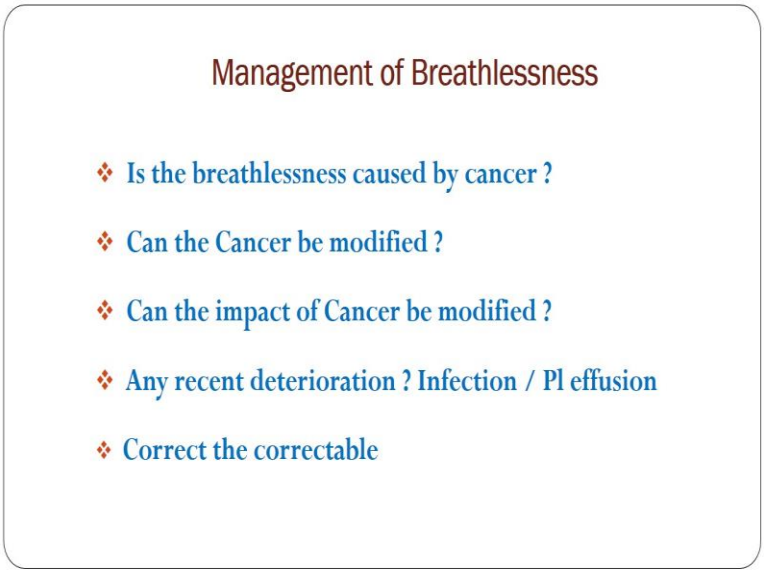

How you will manage breathlessness or dyspnea? First of all ask this question is this caused by cancer or is this cancer curable can be modified or is this this dyspnea has happened recently or the patient is deteriorating recently, is there any infection or effusion which can be treated. So, the final thing is correct the correctable like if patient has pneumonia and become recently dyspneic you can treat pneumonia with antibiotic and you can correct the correctable. Secondly, if patient has got effusion plural effusion and becoming dyspneic you can tap the infusion and make patient comfortable.

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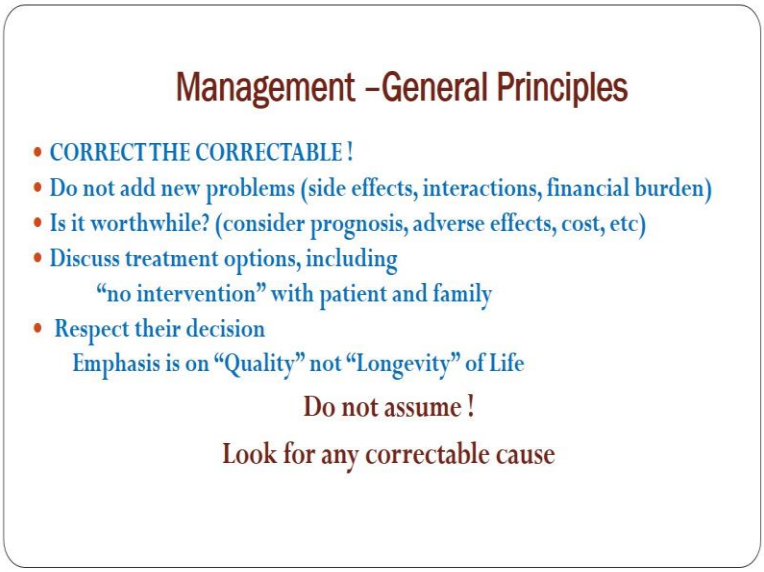

So, general principle again in palliative care always correct the correctable first, but whatever method or treatment you adopt it should not add to the new problem like side effect of the drug or interaction or financial burden to the patient. It is worthwhile first you find out whether whatever treatment you are going to suggest is it worthwhile like if patient is having huge tumorin a mediastinum and surgeon asked that it we can attempt a resection one should give a thought that by just resecting a part of the tumor is it going to help the patient is it worthwhile like this.

So, discuss the treatment option including no intervention with patient and family whether even if we are not going to do any intervention discuss with the family that how it is going to be affect the patients future. Respect their decision the involve them in decision making and emphasize on quality and not the longevity of the life as you know the cancer may not be curable then what is important is quality of life.

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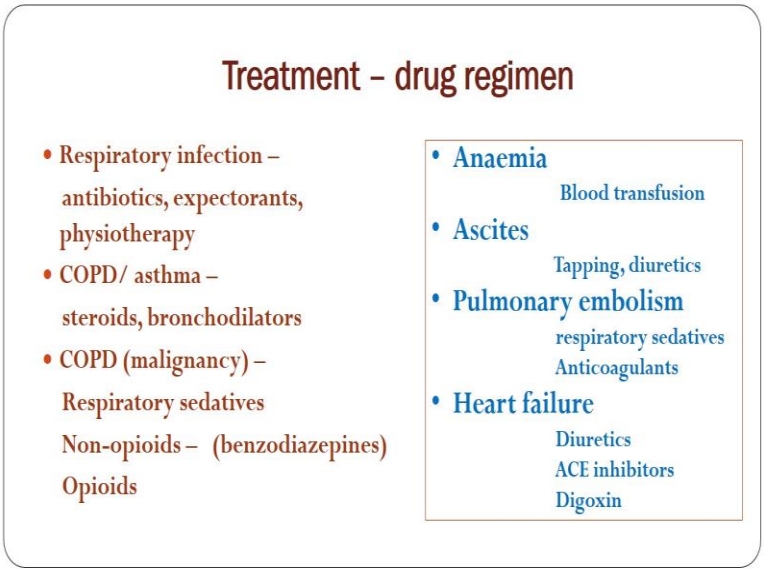

Coming to treatment after dyspnea depending on the type of depending on the cause you can treat the cause like respiratory infection treat with antibiotic, expectorants and physiotherapy. Patient is having asthma then give him steroid or bronchodilator and COPD malignancy then because of malignancy patient is obstructive lung disease. Then you can give respiratory sedative benzodiazepines or opioids. Other things which you can correct like correction of anemia to certain extent by blood transfusion, correction of ascites by tapping, diuretics, pulmonary embolism by giving a respiratory sedative and anticoagulants and heart failure by giving diuretics and ACE inhibitors and digoxin.

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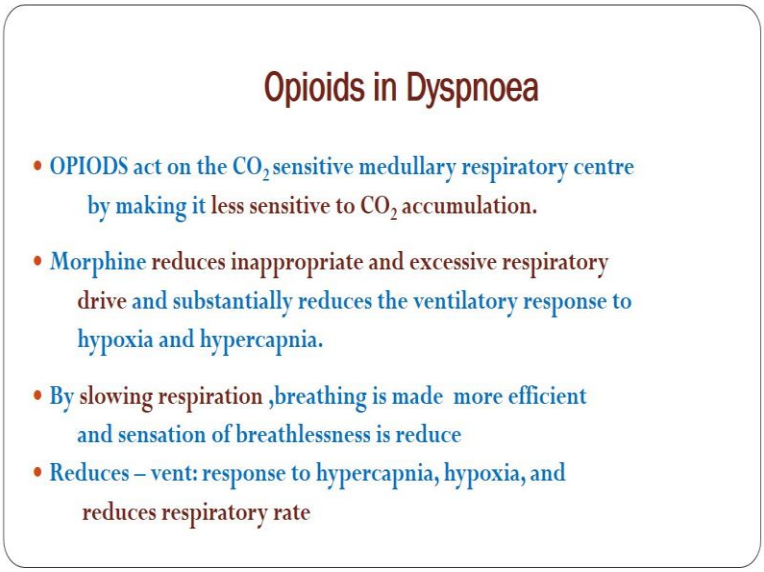

There is a definite role of opioids in dyspnea many doctors who are not aware about this and has not use oral morphine they are always hesitant how can you give morphine to a patient who is dysneic because morphine itself causes respiratory depression, but that particular action of morphine is useful in patient having breathlessness in terminal stage of the disease.

So, opioid acts on the CO2 sensitivity medullary respiratory center by making it less sensitive to CO2 accumulation. So, in dyspnea there is a CO2 accumulation by making this center less sensitive you can decrease the respiratory rate of the patient. Then it reduces the inappropriate and exaggerated respiratory drive. So, patient will not make unnecessary effort and it will reduce the ventilatory response to hypoxia and hypercapnia.

By slowing respiration breathing is made more efficient and sensation of breathlessness is reduced and by morphine causes somewhat pain relief and somewhat felling of well being that will also reduce the anxiety and it will reduce the dyspnea. So, reduces the vent response to hypercapnia, hypoxia and reduces respiratory rate. So, morphine has got definite role to play in treatment of dyspnea or breathlessness.

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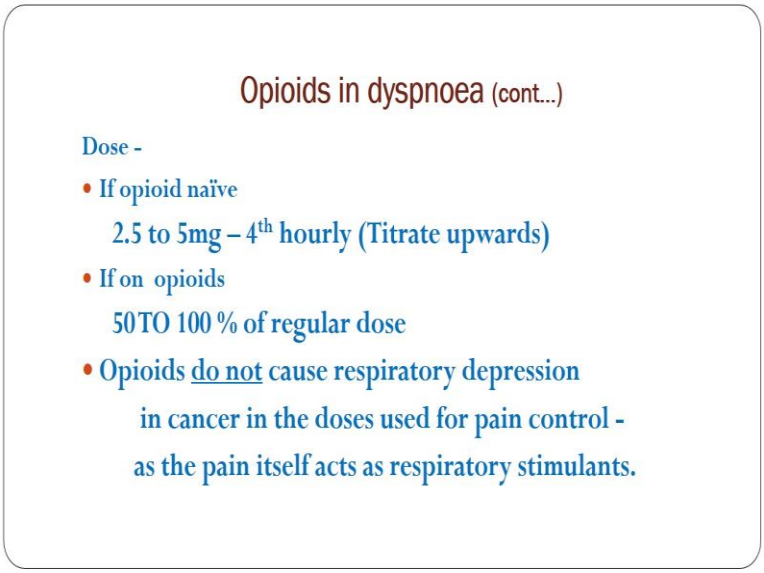

Dose is if the patient has never received morphine you can start with the dose of 2.5 to 5 milligram given 4 hourly by oral route and you can titrate the dose after 24 hour 48 hours.

If patient is already on taking morphine then 50 to 100 percent of the regular dose you can continue or increase a dose by 50 to 100 percent and continue it 4 hourly. Opioids or morphine does not cause respiratory depression in cancer in the dose used for pain control. So, in presence of pain opioids does not cause respiratory depression in cancer patients this you must keep in mind and in fact, it helps the patient and makes him less dyspneic and makes him comfortable and anxiety free.

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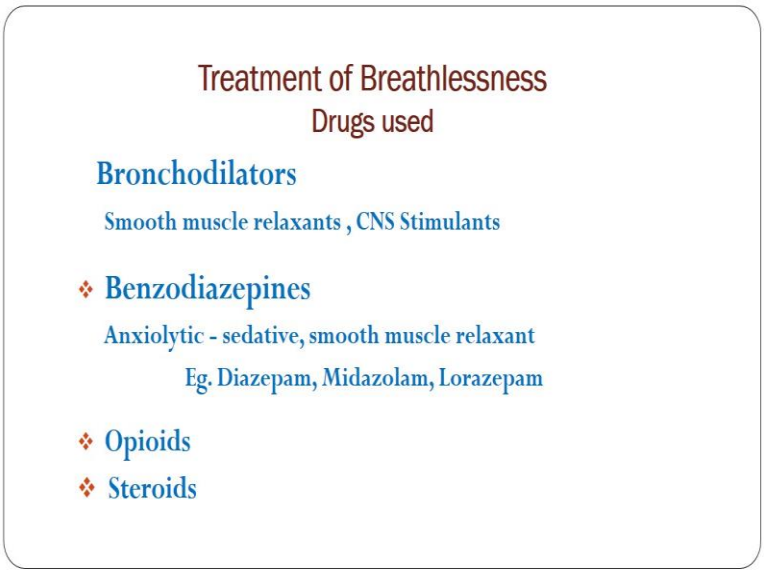

Other drugs which you can be used for dyspnea are bronchodilators, benzodiazepines that is for a sedation of the patient and it acts as a anxiolytic drugs like diazepam, midazolam or lorazepam, opioids and steroids these are the drugs used for breathlessness.

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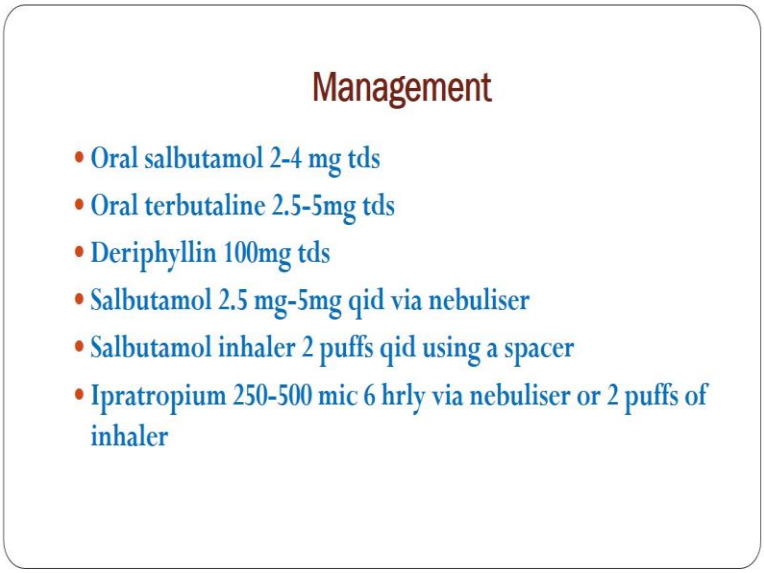

Oral salbutamol tablets for the as a bronchodilator or terbutaline, deriphyllin, salbutamol in a nebulizer or salbutamol inhaler and a ipratropium 6 hourly as a nebulizer will reduce the which dose bronchodilator and it will reduce the dyspnea to some extent.

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Other drugs as I said earlier steroids, dexamethasone 4 to 8 milligram per oral dose daily look for benefits within 7 days and then taper the dose. Benzodiazepines like lorazepam 1 to 2 milligram sublingual midazolam or diazepam and theophylline can be given.

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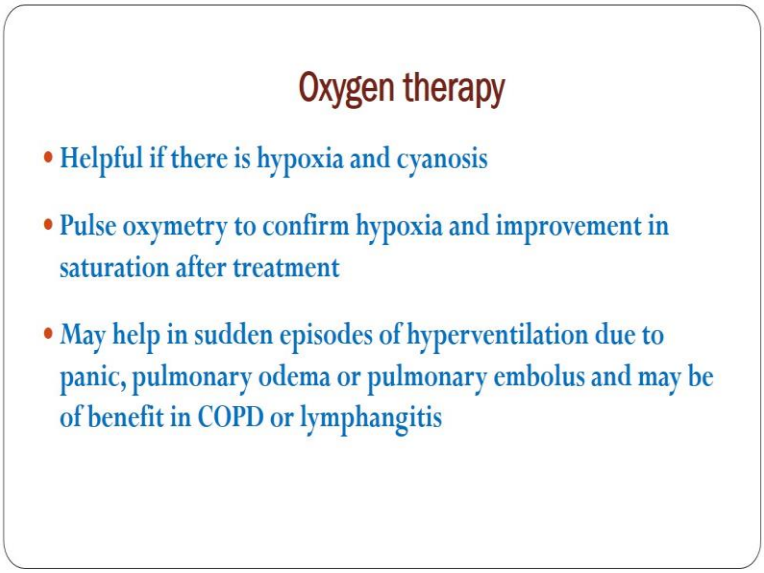

Is there any role of oxygen therapy in dyspnea? This is the general trend there is as soon as patient becomes dyspneic or breathless we immediately give oxygen, this is the

general practice in any healthcare setup. But is oxygen therapy really helps the patient? In palliative care we always look for pros and cons whenever we start any additional treatment to the patient. So, oxygen helps only if it is the dyspnea is because of hypoxia, if saturation is falling and by you can check by giving oxygen if it it is a saturation rises you can continue oxygen.

So, pulse oximetry simple thing which can confirm the hypoxia and improvement in saturation after oxygen you can judge. Sometimes it helps in sudden episode of hyperventilation due to panic sometimes usually patient is fine normal talking and walking around, but sometimes because of some stress he becomes suddenly dyspneic in this case is if you give oxygen and may be because of it is pulmonary edema or pulmonary embolism or maybe benefit in this type of patient who are having COPD.

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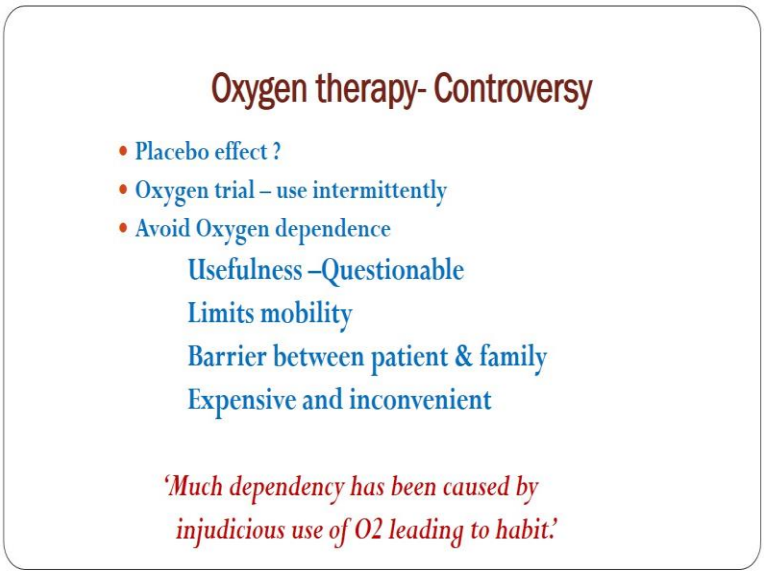

But controversy is sometimes oxygen acts as a placebo effect, patient feels comfortable no now I am given oxygen so, my I am going to be relieved of dyspnea. So, give oxygen trial intermittently, if patient improves continue oxygen if patient does not have any effect on oxygen saturation after giving oxygen you can discontinue intermittently. Avoid oxygen dependency because of oxygen dependency sometimes you have to keep patient

admitted only, patient cannot be sent home because there is no they might not have provision at home.

So, give oxygen intermittently you can explain the situation to the patient and relatives prior in advance and take a consent that no oxygen will be given and if they agree for it do not start the oxygen. Because it is usefulness is always questionable, it limits the mobility of the patient and sometimes because of oxygen mask patient is not able to communicate with the relative. So, during terminal phase he cannot communicate with the relative and talk to them. So, it becomes a barrier between patient and family and sometimes it becomes a expensive outcome for the patients relative because patient has to remain hospitalized because of that and become causes inconvenience. So, much dependency has been caused by injurious use of oxygen leading to habit. So, it is a as I said earlier in healthcare it has become habit to just start oxygen which should not be practiced in palliative care.

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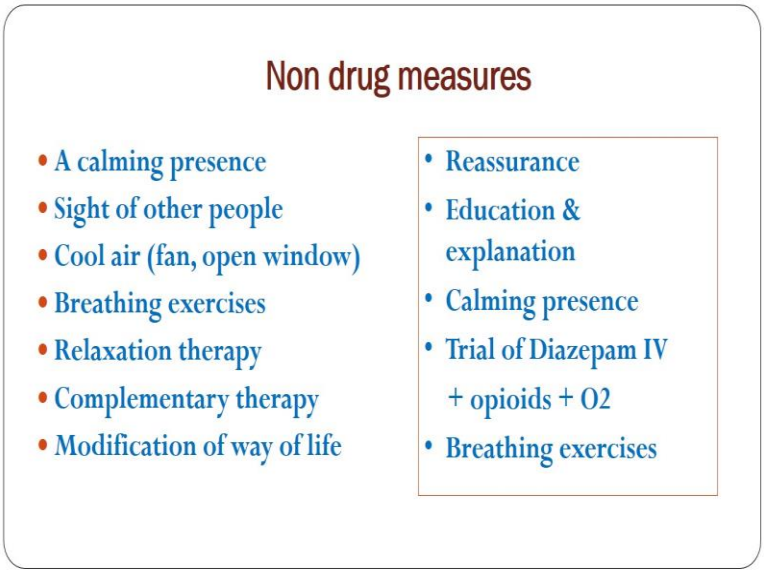

Other non drug whether in palliative care any symptoms we always talk about its management in terms of non drug management and pharmaceutical management. So, there are many small small things which you can practice at home also and it can make your patient comfortable. So, in dyspneic patient the non drug measure contains a calm

calming presence and presence of sight of other people he should not be left alone he should be able to see his relatives and close one is surrounding him. There should be cool air with fan and open windows and this breathing exercise little bit ask him to take deep breath hold the breath relaxation therapy, complementary therapy and modification of way of life you plan his daily rituals like he should not go and finish all the rituals at a time one thing at a time.

Firstly, he will go and brush the teeth and come back relax when his breath breathing becomes normal after sometime he can go for bath like this. So, plan his activities, reassurance is very important, education of patient and about his activity planning and explanation is very important, calming presence of loved one, trial of diazepam and opioid and oxygen and breathing exercise.

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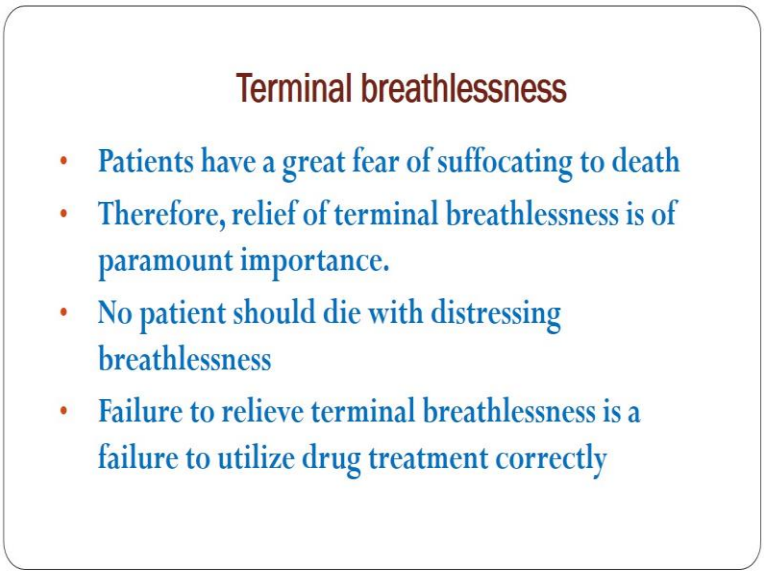

Terminal breathlessness, when patient is about to die he is likely to become very breathless and we call it terminal breathless. At this hour patient has lots of fear and suffocating type of feeling and fear of death. So, relief of terminal breathlessness is most important in palliative care scenario and when you are giving end of life care.

So, no patient should die with distressing breathlessness, failure to relieve terminal breathlessness is failure to utilize drug treatment correctly there are many drugs available to treat this terminal breathlessness.

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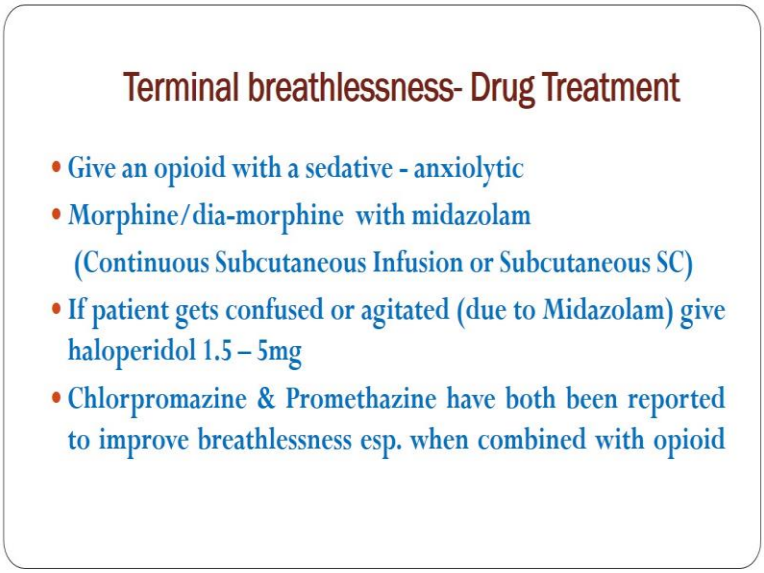

So, which are the drug? First of all if patient is on opioids or even if not on opioid you can start tablet morphine 2.5 to 5 milligram hourly or and it acts as a sedative as well as anxiolytic. Then add midazolam either in form of infusion or subcutaneous route or midazolam injection you can just pour give through nasogastric tube or in oral cavity in mouth also patient will absorb. If patient gets confused or agitated you can add haloperidol 1.5 to 5 milligram 3 times a day or chlorpromazine and promethazine as more be reported to improve breathlessness when combined with opioids. So, here you have to sedate the patient make him as calm as possible and that will help him to relieve breathlessness.

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Nursing care again very important patient should be allowed to sit in a semi sitting position with lots of support on the back and lean forward sometimes patient wants to lean forward and lie down put his head on the on a bench or a or a pillow in front of him. Fresh air from the window, table fan, oxygen through nasal prongs and not mask nasal prongs will allow him to speak and mask will impede the conversation and frequent sips of water can be given.

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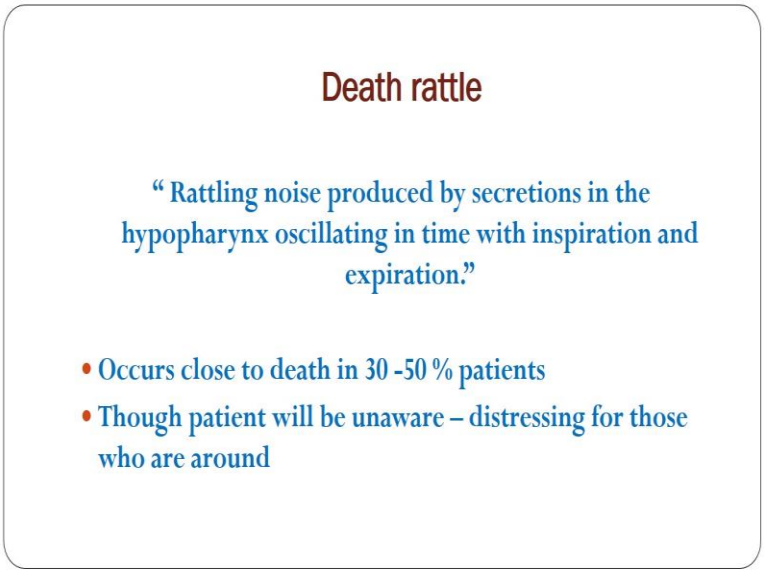

Another symptoms which we come across in palliative care setup particularly towards end of life is death rattle. This is because of collection of the secretion at the base of the mouth base of the tongue and tongue falling backward because of the relaxation of the muscle. So, that causing rattling sound produced by secretion in the hypopharynx oscillating in time with inspiration and expiration during respiration it causes gives time. It occurs in 30 to 50 percent of the patient and though patient is not aware about it only relatives and family members hears the death rattle and they become anxious that he is not able to breathe he is suffocating. So, they are anxious and that is why we have to relive that.

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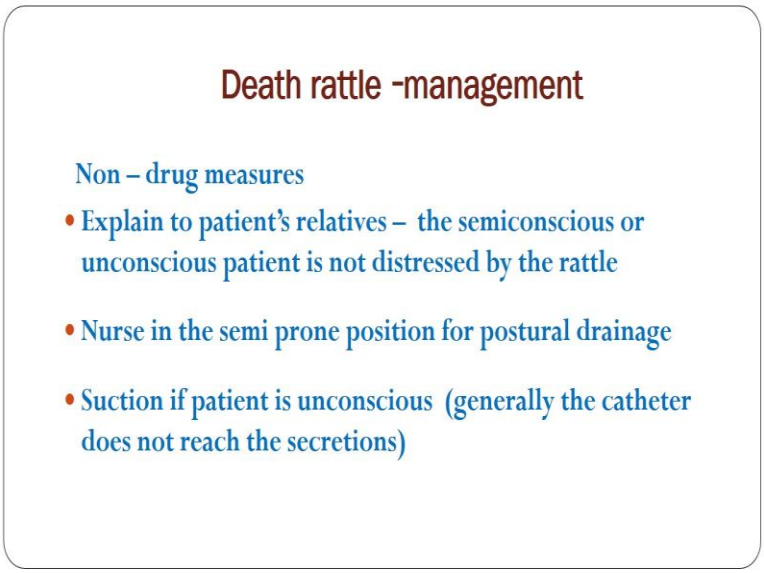

Death rattle can be managed by non drug a measure first of all explain the relative. You can make the patient semi prone or one side of his either left side or right side make him comfortable and take out the secretion by suction or by putting a gauze finger on the gauze and just cleaning out the secretion from the oral cavity.

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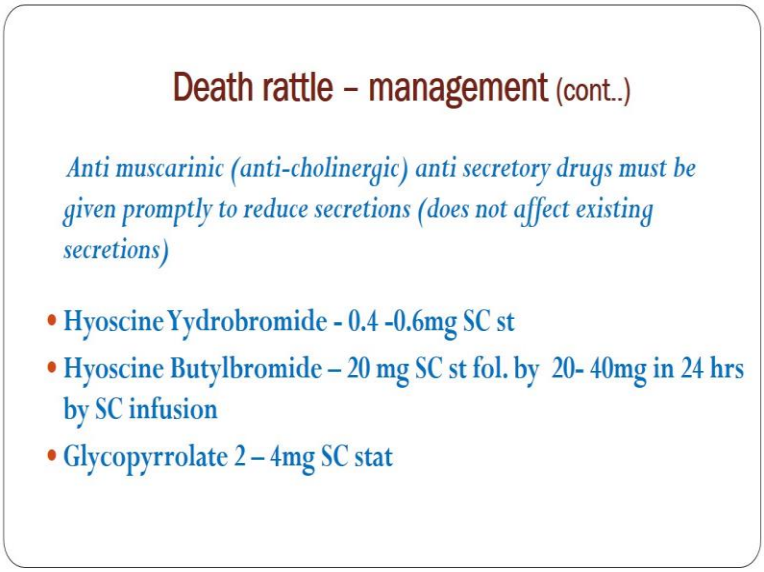

You can give Hyoscine or glycopyrrolate is the common drug given for this, this is for the drying of the secretion at this time. So, death rattle though it last for few hours, but it is very disturbing as far as patients relatives are concerned and can be managed very easily with few non drug measures only. Thank you very much.