Medical Terms

S.No.	Medical Term	Meaning / Description	Product Used	Date
1	Cardiology	(Cardiac = Heart, Logy = Study of) It means study of Heart (structure, disorders) is called as Cardiology	ECG machine, Cardio-tocograph, Echo-cardio graphic machine, Ultrasound machine	03.01.2011
2	Neurology	(Neuro = nerve, Logy = Study of) Study of Nervous System (Brain + Spinal cord) is called as Neurology	EEG machine, CT scan, MRI scan	04.01.2011
3	Gynaecology or Gynecology	(Gynika = Women, logy = Study of) It means study of female reproductive system (Uterus, ovaries, vagina etc.)	Ultrasound machine, Fetal monitor, Colposcope etc.	05.01.2011
4	Hematology or Haematology	(Heam = Blood, logy = Study of) Study of Blood is called as Hematology, it includes Blood components it's RBC, WBC & Plasma.	Blood Cell counter, Plasma Extractor, Biochemistry analyzer, Auto-analyzer etc	06.01.2011
5	Histology	(Histos = Tissue, logy = Study of) Study of different kinds of tissue in body is called as Histology	No such commercial machines are used in Histology, while some special kinds of Clinical Research Microscopes (Electron Microscope) are used for tissue analysis	10.01.2011
6	Pathology	(Pathos = Feelings, sufferings, logy = study of) Pathology is the study and diagnosis of disease done by Pathogen (Foreign Body)	All kinds of Clinical Microscope, Bio-chemistry analyzer, Semi-auto analyzers etc.	11.01.2011
7	Cytology	(Cyto = Cell, logy = study of) Study of cell (Unit of Life) and cell organales is called as Cytology.	All kinds of higher end Microscopic instruments are used in Cytological study.Also some kinds of Imahing techniques are used to study real time cell functions.	12.01.2011

8	Radiology	(Radio = Related to Medical Imaging, logy = study of)	ultrasound (U/S), computed tomography (CT), nuclear medicine, Positron	13.01.2011
		Radiology is medical specialty that employs	Emission Tomography (PET-Scan)	
		the use of imaging to both diagnose and treat	and Magnetic Resonance Imaging (MRI)	
		disease visualized within the human body.		
	Inf	ormation according to the speciality of the Dog	tors	
S.No.	Speciality	Meaning/Description		
1	Cardiologist	(Heart Specialist [Structure, functioning &		14.01.2011
		conduction system])		
	NT1	(Durain 9) Namerana Granda na Caracialiat)		
2	Neurologist	(Brain & Nervous System Specialist)		
3	Radiologist	(Imaging Technology {CT, MR, U/S}Specialist)		
				_
4	Gynecologist /	(Specialist of Male & Female sex disease)		-
	Gynaecologist			15.01.2011
_				
5	Urologist /Nephrologist	(Kidney/Urine Specialist)		
6	Pathologist	(Blood disease Specialist)		
7	Orthopedic	(Bone Specialist)		17 01 2011
8	Ophthalmologist	(Eve Specialist)		17.01.2011
	- F 8			
9	Sonologist	(Ultrasound {Color Doppler} Specialist)		
10	ENT Specialist	(Far Nose Throat Specialist)		
		(La, 1000, 1mout Specialist)		
		Medical Terminology		
S.No.	Speciality	Meaning/Description	Product Used	
1	Electrocardiography	Electro = related with electricity;	It is the Transthoracic (Periphery of the	18.01.2011

		Cardio = related with heart; Graphy = recording procedure	thoracic=chest) interpretation of Electrical activity of heart over time scale means recording of ECG	
2	Electrocardiogram	It means only graphical analysis of the graph produced by the Electrocardiography machine		
3	Electrodes	Electrodes are used to pick up the signal from human body, there are different kinds of electrodes are used in ECG recording, like : Disposable Clamp type Suction or Bulb	({Ag-AgCl} Silver silver chloride) (Placed over limbs) (Placed over Chest)	19.01.2011
4	Lead Name	There are total 12 Leads in ECG recording, and these are : Lead I, II, and III avR (Augumented vector Right) avL (Augumented vector Left) avF (Augumented vector Foot) V1, V2, V3, V3, V4, V5, V6 that means three leads are Bipolar while Nine leads are Unipolar	(Bipolar leads) (Unipolar Leads) (Unipolar Leads) (Unipolar Leads) all are (Unipolar Leads)	
5	Lead configurations	Lead configuration means in which manner you are going to make the lead connections, to get the different lead connections(out of 12)you have to make different leadconfigurations.		
		Diseases related to the heart		
1 2	Normal sinus rhythm Brabycardia	Normal Heart Rate (HR = 72) bpm Slower Heart Rate(HR \leq 60) bpm		

4	Atrial flutter Atrial fibrillation Note:	Much faster Heart Rate(HR ≥ 250) bpm Very Fast Heart Rate (HR ≥ 350) bpm HR = Heart Rate; bpm = Beats Per Minute		
		Some more medical terminology		
1	PAC's (Premature A These are the types of benign arrhythmia whi also called atria. These contraction (PVC) and sometimes called heart	trial Contractions) premature heart beat, irregular heart beat or ch start in the upper two chambers of the heart, e aren't as serious as a premature ventricular I usually require no medical care. PAC is also c palpitations.		21.01.2011
2	PVC's (Premature vol Premature ventricular premature beat (VPB) which the ventricle con "skipped beat" or as pa begins in the ventricle Premature Ventricular	entricular contractions) contraction (PVC), also known as <u>ventricular</u> or extra systole, is a form of irregular heartbeat in ntracts prematurely. This may be perceived as a alpitations. The depolarization of cardiac myocytes instead of the usual place, the sinoatrial node. Contraction waveform (one cycle)		
		"Heart Blocks"	-	
	There are three kinds of Ist Degree; Iind Degr	of heart blocks. ree & IIIrd Degree		22.01.2011
1	I [*] Degree First degree block or H conduction system of t beyond 0.20 seconds. always at the level of t	PR prolongation is a disease of the electrical the heart in which the PR interval is lengthened In first degree heart block, the disease is almost he atrioventricular node (AV node).		
2	II nd Degree this is a disease of the	electrical conduction system of the heart. It	Λ	1

	refers to a conduction block between theatria and ventricles. The presence of second degree AV block is diagnosed when one or more (but not all) of the atrial impulses fail to conduct to the ventricles due to impaired conduction.		
3	III rd Degree Third degrees AV block, also known as <u>Complete Heart Block</u> , is a defect of the electrical system of the heart, in which the impulse generated in the atria (typically the SA node on top of the right atrium) does not propagate to the ventricles.		
1	Multifocal Atrial Tachycardia (MAT) Multifocal Atrial Tachycardia is a cardiac arrhythmia, specifically a type of Supraventricular tachycardia. It is more common in the elderly. It is mostly common in patients with lung disorders, but it can be		24.01.2011
	occur after acute MI (Myocardial Infarction), hyperaemia (increase blood flow in different body tissue), and hypomagnesaemia (low level of magnesium in the blood). It is characterized by an electrocardiogram (ECG) strip with 3 or more P-waves of variable morphology and varying P-R intervals, plus tachycardia, which is a heart rate exceeding 100 beats per minute. The P-waves and P-R intervals are variable due to a phenomenon called wandering atrial pacemaker(WAP). The electrical impulse is generated at a different focus within the atria of the heart each time. WAP is positive once the heart generates at least three different P-wave formations from the same ECG lead.	M	
	Then, if the heart rate exceeds 100 beats per minute, the phenomenon is called Multifocal Atrial Tachycardia		
	Accelerated Idioventricular Tachycardia (AIR))	25.01.2011
	The accelerated idioventricular rnythm occurs when depolarisation rate		25.01.2011

	of a normally suppressed focus increases to above that of the "higher This most commonly occurs in the setting of a sinus bradycardia. In accelerated idioventricular rhythm, the rate of cardiac contraction is determined by the intrinsic rate of depolarisation of the cardiac cells. It can be present at birth. it may be also present at the time of birth		
	Atrio-Ventricular Nodal Re-entrant Tachycardia (AV	/NRT)	
1	AV nodal re-entrant tachycardia (AVNRT) is a type of tachycardia (fast rhythm) of the heart. It is a type of Supraventricular tachycardia (SVT), meaning that it originates from a location within the heart above the bundle of His.It is more common in women than men (approximately 75% of cases occurring in females). The main symptom is palpitations. Treatment may be with specific physical manoeuvres, medication,or rarely DC cardio version. Frequent attacks may require radio frequency ablation, in which the abnormally conducting tissue in the heart is destroyed.		27.01.2011
1	Wolf Parkinson Syndrome (WPS)		_
	Wolff-Parkinson-White syndrome (WPW) is a syndrome of pre- excitation of the ventricles of the heart due to an accessory pathway known as the bundle of Kent. This accessory pathway is an abnormal electrical communication from the atria to the ventricles. The incidence of WPW syndrome is between 0.9 and 3% of the general population. While the vast majority of individuals with a bundle of Kent remain asymptomatic throughout their entire lives, there is a risk of sudden death associated with the syndrome.		28.01.2011
	Ultrasound		
	Ultrasound is an Mechanical Pressure Wave, and it could be used to see it is produced by the Piezo-electric crystal by supplying a specific current in our machine Caddo 11 & 12B it is produced by Transducer or Probe v frequency this frequency can be change by hardware and the range of free Caddo 11B & 2-5 MHz for Caddo 12B.	the internal organs of the human body and voltage. which is working at 3.5 MHz operating quency lies between <u>2-4 MHz</u> for	29.01.2011
1	The following operating modes are used in U/S machine :		1
a)	B Mode (Bright Mode)		31.01.2011

b)	BB Mode	(Dual Bright Mode)		
0)	DD Mode	(Duai bright Mode)		
c)	4/9B Mode	(4/9 times B mode)		
d)	BM Mode	(Bright + Motion Mode)	Used to see the moving 3d organs like Heart	
e)	M Mode	(Motion Mode)	Used to see the moving 3d organs like Heart	
2	Kinds of probe used in	U/S machine :		1
a)	Convex Probe	(Convex in shape and generally used in Abdomina	al, Urology, Gyanic applications)]
b)	Linear Probe	(Generally used to see Intestine (Abdominal) and	small parts of body)	01.02.2011
c)	Micro-Convex Probe	(used to see small body parts of abdomen)		
d)	Trans-vaginal Probe	(used for the internal vaginal examinations)		
e)	Endo rectal Probe	(used for the rectum examinations)		
f)	Echo/cardiac/Sector Probe	(used for the cardiac (Heart) examinations)		
		Heart Echocardiography Caddo 11 & 12B		1
	In a normal subject of av defined from the rib ca junction of the second angle to the apex beat, midclavicular line. Fro- across to a point in the sternal edge, then it pa its junction with the th marked by a line joinin second costal cartilage	verage build, the position of the heart can be age (Fig. 10). The cardiac outline extends from the left costal cartilage with the sternum at the sternal usually in the fifth intercostal space on the m the apex, the inferior surface of the heart runs e right fifth intercostal space about 1 cm from the rallels the sternum to a point 1 cm to the right of ird right costal cartilage. The base of the heart is g the right third costal cartilage and the left		02.02.2011

	and ribs, or by the lungs within their pleural membranes, and these tissues are virtually impenetrable to ultrasound. However, as shown in Fig. 11, the left lung does not cover the heart completely and in most individuals beneath the third, fourth and fifth intercostal spaces, for 2 or 3 cm to the left of the sternal border, the pericardium lies directly beneath the chest wall and pleural membranes. This region, termed the left parasternal area, provides the best access for echocardiography. Moreover, it lies over the center of the heart, and the distance from the chest wall to the furthest part of the normal heart is only about 12 cm	
	Additional access (Fig. 12), important particularly for two-dimensional echocardiography, can usually be obtained from the cardiac apex and by a subcostal route, with the transducer placed near the xiphisternum. The great arteries and the base of the heart can also be visualized from the suprasternal notch. The approaches described above are available, to a greater or lesser degree, in most adults. In young children, the ribs and lungs do not attenuate the ultrasound beam so severely, and in neonates the transducer can be placed almost anywhere on the precordium. By contrast, in adults with "barrel" chests, or who have hyper inflated lungs, for example as a result of chronic emphysema, it can be almost impossible to obtain any echocardiographic images. Lack of adequate access to the heart is the greatest limitation to echocardiography and a large proportion of the technical skill required to perform the examination lies in being able to find a transducer site from which clear images can be obtained	
1	Cine loop is a sequence of individual image data acquired during a certain time period stored digitally in system memory. When played in a loop, the images provide a movie-like, dynamic impression of the events imaged. In ultrasound imaging, the image data may be B-mode, colour or spectral Doppler. Cine loops may be played at any speed, and when recorded at high frame rates, they will contain more frames than were displayed during the actual examination. Our product Caddo 11 & 12B has this facility. in Caddo 11B128, 256, 512 frames are the options while Caddo 12Bhas 256 frames cine loop	03.02.2011
1	There are mainly four standard planes for <u>Echocardiography</u> ,	05.02.2011

	 PIAX (Para External Long Axis) PSAX (Para External Short Axis) Apical foure chamber view Subcoastal View Note: There is another view <u>Supraexternal view</u> used to see the heart from upper side 	Advented by the second se	
1	Parasternal Views of Heart Analysis To obtain parasternal views, the subject is inclined slightly toward the left lateral position The transducer is placed over the intercostal space as for an M-mode examination (Fig. 17) For the long-axis view, the scan plane is aligned from the right shoulder to the left kidney with the transducer index mark toward the shoulder so the aorta will appear on the right-hand side of the display.		07.02.2011
1	Apical Position of Probe in Ultrasound Examination for heart The subject is turned to the left, and the transducer is positioned at the exact point where the maximal apical impulse can be felt, with its axis <u>aimed toward the right shoulder (Fig). To obtain a long-axis view, the</u> transducer is rotated so that the index mark points upward This is a difficult view to obtain in young, slim subjects, because the scan plane is at a right angle to the direction of the ribs and the latter act as a "venetian blind", that greatly limits the field of view. If the transducer is rotated 90 degrees clockwise, the index mark points toward the left axilla. The scan plane is now parallel to the intercostal spaces, affording an easier view showing the four cardiac chambers together with the interatrial and interventricular septa.		08.02.2011
1	The subject is placed in a supine position, possibly with a pillow under the The transducer is positioned just to the right of the xiphisternum, with its and the index mark oriented toward the left hip (Fig. 19). It is then pressed do	e kidneys to arch the back upward. s axis pointing toward the left shoulder wn so that the ultrasound beam	09.02.2011





	Plz see the figure carefu	Ily and Synchronize the M-mode with heart position	-10 -15 78 BPM in B mode	
1	This is the Apical Four C view to detect many hea four chambers of heart. Also there is an coorelat image of the heart. RA = Right Atrium LA = Left Atrium RV = Right Ventricle LV = Left Ventricle TV = Tricuspid valve MV = Mitral Valve AV = Aortic Valve	hamber view of the heart, it is also an important rt diseases. This in the only view who shows all on between U/S image and real anatomical	Providence of the second of th	18.02.2011
1	All Cardiology Abbreviat it is very important to know you will be able to explain These terms are, (1) LV Mass	ions used in our U/S machine (Caddo 11B) ow about all these terms and their meanings, only t n the medical part of machine in systamatic manne L VPWd	hen er. Left Ventricle Posterior wall Diameter at diastole	19.02.2011
		IVSTd LVIDd LVMW LVMWI	Inter ventricular Septum thickness at Diastole Left Ventricular Inner Diameter at diastole Left Ventricle Mass Weight Left Ventricle Minute work Index	
	(2) BE Time(3) Cardiac Rate(4) Aorta	(Time difference between wave B and E) Heart rate Value Flux		

	 (5) LAD (6) AoD (7) Left Ventricular 	MOV01 MOV02 AA Volume Diameter of Left Auricle Diameter of Aorta	Movement 01 Movement 02 Aortic Area Volume of heart	
	(7) Lett ventricular	LVIDd	Left ventricular inner diameter at diastole	
		LVIDs	Left ventricular inner diameter at systole	
		EDC	End Diastolic Count	
		ESV	End systolic volume	
		SV	Stroke volume	
		FS	Fractional Shortening	
		EF	Ejection Fraction	
	(8) Mitral Valve			
		Valve flux		
		CA/CE	Ration of E and E wave	
		AC down rate	down rate of AC wave	
		EF slope	Mitral Valve closing speed	
		DE slope	Mitral Valve opening speed	
1	Sub Coastal View of He This is the view who sh	<image/>	Interventricular Apex of heart RY Apertic Valve Valve	21.02.2011







	thyroid trachea thyroid Ultrasound Image	
1	Parathyroid gland = The parathyroid glands are small endocrine glands in the neck that produce parathyroid hormone. Humans usually have four parathyroid glands, which are usually located on the rear surface of the thyroid gland or, in rare cases, within the thyroid gland itself or in the chest. Parathyroid glands control the amount of calciumin the blood and within the bones.	18.04.2011
1	Adrenal Gland = In mammals, the adrenal glands (also known as suprarenal glands) are endorrine glands that sit on top of the kidneys	19.04.2011
1	Spleen = The spleen is an organ found in virtually all vertebrates animals with important roles in regard to Red Blood	20.04.2011

GALLƏTVNEƏ		
Angina = Chest pain caused by an inadequate supply of oxygen to the heart muscle.	25.04.201	
Abdominal Abscess = An abscess (Collection of pus in body cavity) located in abdominal cavity	26.04.201	
Abdominal Aortic Aneursm = Aneursm (abnormal widening or ballooning of a portion of an artery due to weakness	29.04.201	
in the wall of the blood vessel) in the aorta found in abdomen coming from thoracic regions		
Abdominal Epilepsy = Amibdonal epilepsy is a rare condition consisting of gastrointestinal (GI) disturbances	30.04.201	
caused by epileptiform seizure activity. (Neurological disorder)		
Abdominal Fibromatoses = A relative large mass of connective tissue resulting from active participation of Fibroblast**,	02.05.201	
occuring more frequently in abdomen of women who have born child		
Fibroblast** = Fibroblast is a type of cell that synthesizes the extracellular matrix and collagen, the structural		
framework (stroma) for animal tissues, and plays a critical role in wound healing		
Abdominal Polyradiculopathies = Disease or Injury involving multiple spinal nerve roots	03.05.201	
(Polyradiculitis = inflamation of multiple spinal nerve roots)		
Abdominal Typhus = An acute systemic febrile infection caused by Salmoneela Typhi (Pathogen)	04.05.201	
Aberrant Tissue = Mass of histologically normal healthy tissue present in abnormal location.	05.05.201	
Abscess = Accumulation of purulent material in tissue, organ or circumsbride space usually associated with	06.05.201	
sign of infection for example Liver abscess means acumulation of pus in liver.		
Acedoxin = Cardio derivativs of lanatosides A or of Digitoxin, They are used for fast Digitalization in congestive heart	09.05.201	
failure (CHF) (condition in which the heart's function as a pump is inadequate to deliver oxygen rich blood to the body)		
Acebutolol = A cardio selective beta-adrenergic antagonist with little effect on bronchial receptors, the drug has	10.05.201	
stabilizing and quinine like effect on cardiac rhythm as well as weak inherent sympathomemetic action		
Acedosis = A pathologic condition resulting from accumulation of acid or depletion of alkaline reserve	11.05.201	
(Bocarbonate content) of the blood and body tissue, and characterized by increase in hydrogen ion concentration		
(Decrease in pH)		

Acoustic Evoked Brain Stem Potential (AEBP) = Electrical waves in the cerebral cortex of brain is generated by	12.05.2011
the brain stem structure in responce to auditory click stimuli.	
Acquired Alexia = A receptive visual aphasia (speech less) characterized by loss of previously processed ability to	13.05.2011
comprehend the meaning or significance of hand written words, despite intact vision	
Acquired Immune Defeciency Syndrome (AIDS) = An acquired defects of cellular immunity associated with	16.05.2011
infection by human immunodefeciency virus (HIV) it is an sexually transmitted disease	
Acute Disease = Disease having a short and relatively severe course.	17.05.2011
Adenitis = Inflamation of the Lymph Nodes	18.05.2011
Adenocarcinoma = A malignant epithelial tumor with a glandular organization.	19.05.2011
Adenohypophysis = The glandular or anterior lobe of Pituitary Gland (Found in head)	20.05.2011
Adenomas = A benign epithelial tumor with a glandular organization	21.05.2011
Adenomyomas = A benign noeplasm of muscles (Usually smooth muscles) with glandular elements, it occurs most	23.05.2011
frquently in uterus and uterin ligaments.	
Adonomyosis = A condition in which tissue more or less perfectly resembling the uterin mucous membrane.	24.05.2011
Adicine = Cardioactive Derivatives, used for fast degitilazation in congestive heart failure	26.05.2011
Aerobic = Any physical mechanism occurs in presence of OXYGEN. for example we respires in presence of	31.05.2011
opxygen, i.e, why it is called as Aerobic Respiration	
Anaerobic = Any physical mechanism occuring in absence of Oxygen.	01.06.2011
for exmaple - some of the lower class animals takes respiration without oxygen called as Anaerobic Respiration	
Agglutinins = Substances that causes cell or other organic particles to aggregate and stike each other	02.06.2011
Superior Vena Cava (SVC) = Large vein collect deoxygenated blood from the head and arms and returns into the	04.06.2011
righr atrium (RA) of heart it is deficult to see the superior venacava in normal ultrasound imaging. we ca see it in	

Transthoracic Ultrasound Technique	
Inferior Venacava (IVC) = Large vein that colletc Deoxygenated blood from lower part of the body and returns into Right Atrium (RA) this vein is clearly visible in Ultrasound examination (Just below the Aorta)	06.06.2011
Coronary Vein = Returns Deoxygenated Blood from heart muscles to the right atrium of the heart	09.06.2011
Carotid Artery = it provides Deoxygenated blood to the Brain, divided into two parts called as Left Carotd Artery and Right Carotid Artery	10.06.2011
Jugular Artery = Carry Deoxygenated Blood from Head to Inferior venacava (IVC)	13.06.2011
Subclavian Artery = Carry Deoxygenated blood from arm, divided into two parts, Right and Left Subclavian Artery	14.06.2011
Subclavian Vein = Brings Deoxygenated blood from arms back to the Inferior Venacava (IVC). divided into two parts, Right & Left Subclavian arteries.	15.06.2011
Mesentric Artery = Provides Oxygenated blood to Intestine	16.06.2011
Hepatic Portal Vein = From intestine directly towords liver, carries blood rich in nutrients for processing before returning to the heart.	17.06.2011
Renal Artery = provides oxygenated blood to Kidneys, divided into Right and Left Renal arteries.	18.06.2011
 Renal Veins = Returns Deoxygenated blood from kidney to the Inferior vena cava (IVC)	20.06.2011