



Batterjee
Medical
College



BATTERJEE MEDICAL COLLEGE RESEARCH FACILITIES

2023-2024

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Research Lab



01

1-UV-Vis Spectrophotometer

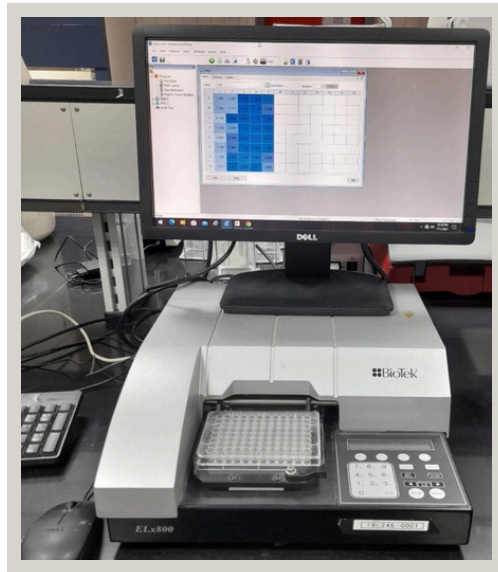


Wavelength	190-1100 nm
Display	6 inches high light blue LCD
Usage/Application	Laboratory Use
Photometric Range	-0.3 - 3.5 A, 0 to 220 %T
Wavelength Accuracy	+0.3 nm

Function:

Spectrophotometer measures light intensity as a function of wavelength and is commonly used to measure the concentration of a compound in an aqueous solution. Different wavelengths of light can be analysed. UV-Vis spectrophotometer (ultraviolet visible) measures in the UV and visible regions of the electromagnetic spectrum (190 to 380 nm and 380 to 760 nm, respectively). UV-Vis near-infrared spectrophotometers (UV VIS NIR) are also available and typically measure up to 2600 to 3300 nm.

2-Microplate Reader (ELISA)



Min Wavelength	400 (nm)
Max Wavelength	750 (nm)
Description Microplate reader	400 to 750 nm, 6, 12, 24, 48, 96 well

Function:

A microplate reader is used to measure chemical, biological or physical reactions, properties and analytes within the well of a microplate. A microplate consists of small wells in which separated reactions take place. These reactions convert the presence of an analyte or the progression of biochemical processes into optical signals. The microplate reader detects these signals and thus quantifies the parameter of interest.

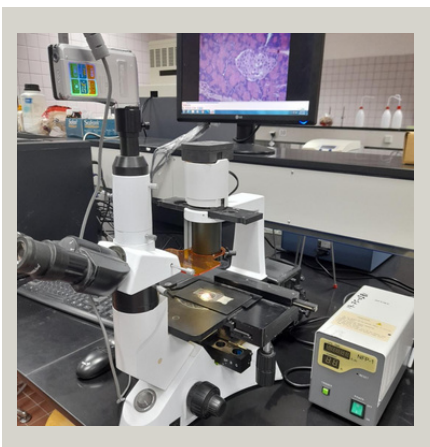
3-Microplate Washer (ELISA)



Function:

Microplate washer is an instrument designed to control the procedure of washing experimental samples arranged in plate-based formats.

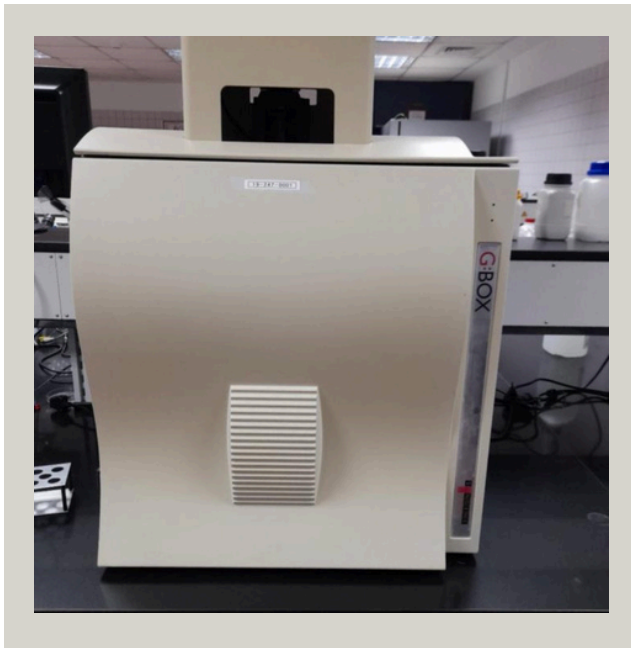
4-Fluorescence Microscope



Function:

Fluorescence microscopy is highly sensitive, specific, reliable and extensively used to observe the localization of molecules within cells, and of cells within tissues.

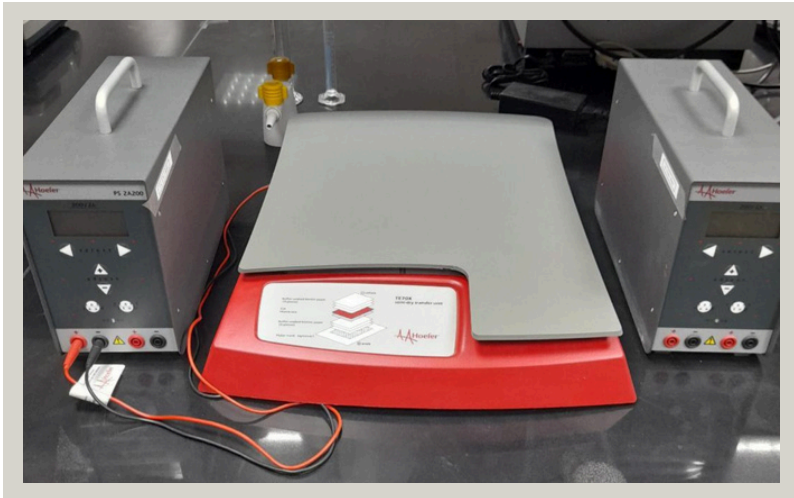
5-Gel Documentation System



Function:

Gel documentation or gel imaging system is used for the analysis of DNA, proteins, antibodies and nucleic acid immobilized in polyacrylamide or agarose gels, membranes or microarrays.

6-Blotting Semi-Dry Transfer Unit



Function:

Efficient design uses minimal buffer to transfer proteins from polyacrylamide gels in less than one hour. Semi-dry blotters are designed to quickly and efficiently transfer proteins and nucleic acids from gels onto blotting membranes. Compared to traditional tank blotters, this device carry out electrophoretic transfer using significantly less transfer buffer and in a shorter amount of time.

7-Direct-Q® Water Purification System



Function:

The Direct-Q system delivers ultrapure (type I) and pure (type III) water on demand directly from tap water. Direct-Q offers superior ultrapure water for Biochemical Oxygen Demand (BOD) applications and effectively eliminates source water as a cause of high blanks in BOD analysis.

8-Laminar Flow (Vertical Airflow type)



9-Laminar Flow (Horizontal Airflow type)



10-Biosafety Laminar flow



Function:

Biological safety cabinet creates a unidirectional laminar flow across the work surface following parallel patterns. The cabinet protects the operator as the airflow moves inside.

11-CO2 Incubator



Function:

The purpose of a CO₂ incubator is to maintain an optimal environment for cell growth, by providing carbon dioxide control in a humidified atmosphere with constant temperature.

12-Microbiological Incubator



13-Autoclave



14-Deep Freezer (-80 °C)



Function:

Ultra-low temperature freezers (ULT freezers) typically have a temperature range of -45C to -86C and are used for the storage of cell preparations, tissue samples, drugs, enzymes, chemicals, viruses, and bacteria, among others.

15- Deep freezer (-40°C)



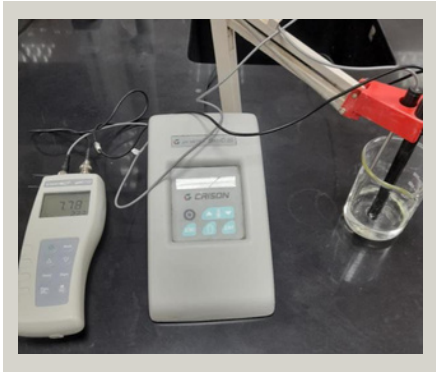
16-Refrigerated Centrifuges (with different sizes)



17-Normal Centrifuges (with different sizes)



18-PH meters



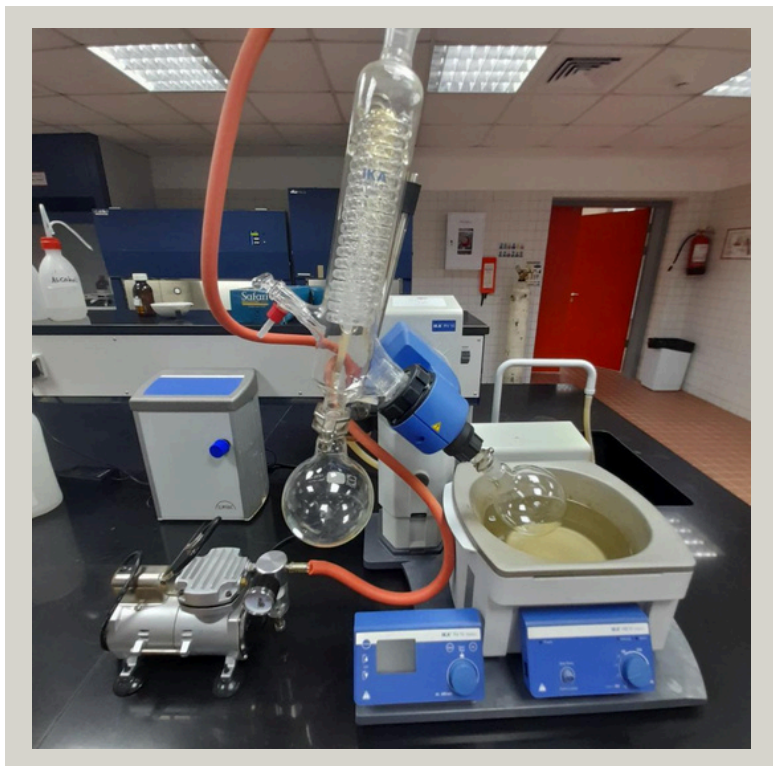
19-Gyro-Rocker



Function:

Unit has a 3-D gyroscopic motion providing a gentle swirling movement which is ideally suited for mixing under low foaming conditions, including DNA extractions, staining and destaining gels, cell culture and general mixing applications

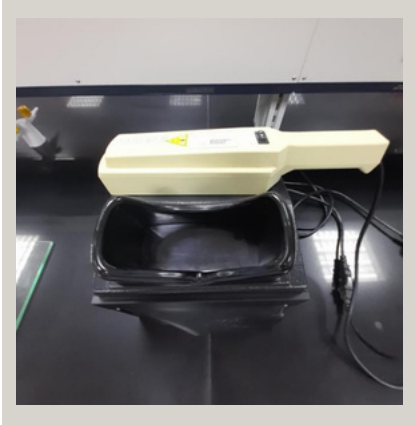
20-Rotary Evaporator System



Function:

Rotary evaporator is a device used for the efficient and gentle removal of solvents from samples by evaporation. Rotary evaporators are also used in molecular cooking for the preparation of distillates and extracts.

21-UV Scanning Lamp



Function:

Lamps provide long- and shortwave irradiation for viewing TLC plates, and for UV fluorescence or absorption demonstrations.

22-Liquid Nitrogen Tank



Function:

It is used for the cryopreservation of the biological samples, such as cells lines, tissues, and human or animal genetic samples.

23-Shaking Water bath



24-Water Distiller



25-Micropipettes



26-High-Pressure Liquid Chromatography (HPLC)

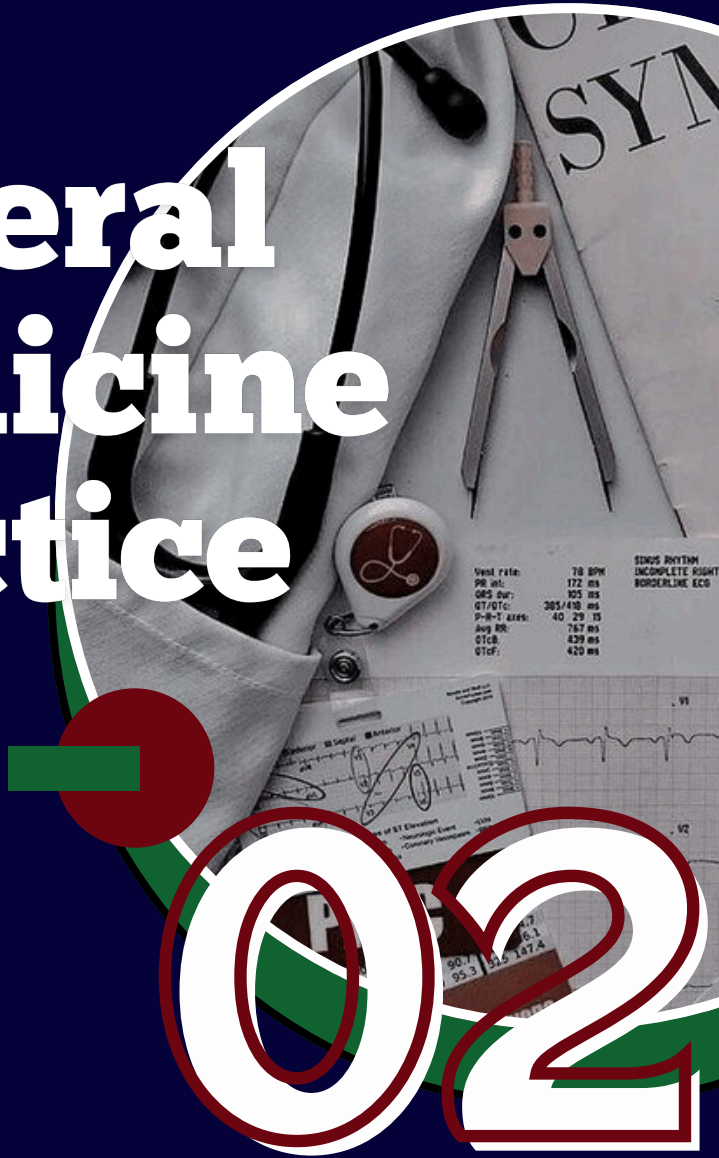


High-Pressure Liquid Chromatography (HPLC)
Shimadzu Prominence-i LC-2030C 1 228-45202-58 LC-2030C
3D* Sample racks. LC-2030C 3D is the PDA model with a sample
cooler.

Applications of HPLC

- Identification of compounds
- Characterization of molecular bonds within compounds
- Purity testing
- Molecular quantification
- Analysis of nutrients in blood and other medical samples.
- Detection of metabolites or drug traces in biological samples.
- Identification and quantification of pesticides along with preservatives and artificial flavorings and colorants.

General Medicine Practice



Biochemistry Department



Application and Principle:

- Many important biological solutions are estimated as colored solutions, in which the intensity of the color is proportional to the concentration of the biological substance.
- Every coloured solution is capable of absorbing light at certain wavelengths; therefore, the intensity of the colour is measured as its absorbance of its wavelength.
- Photometer (colorimeter) measures the absorbance of the colored solutions, and the intensity of colors are read on its scale.
- The sample unknown solution is compared with a known standard to obtain the exact concentration of the test unknown sample.

Hematocrit Centrifuge: HEMATOKRIT 210



A Complete Guide To Hematocrit Centrifuges:

Before delving into the technicalities of hematocrit centrifuges, let's establish a fundamental understanding of hematocrit. Hematocrit is a vital parameter used to measure the volume of red blood cells (RBCs) in a blood sample. It is expressed as a percentage and provides valuable insights into a patient's overall health.

Hematocrit Centrifuge:

HEMATOKRIT 210



The Need for Hematocrit Analysis

Determining hematocrit levels is crucial for diagnosing various medical conditions, including anemia, polycythemia, and dehydration. Healthcare professionals rely on hematocrit measurements to make informed decisions regarding patient treatment and care.

The Role of Hematocrit Centrifuges

Hematocrit centrifuges are specialized laboratory instruments designed to separate blood components based on their density. They utilize centrifugal force to separate whole blood into its constituent parts: plasma, RBCs, and buffy coat (white blood cells and platelets).

How Hematocrit Centrifuges Work

1. **Sample Preparation:** A small volume of blood is collected and mixed with an anticoagulant to prevent clot formation.
2. **Centrifugation:** The prepared sample is placed in a hematocrit tube and loaded into the laboratory centrifuge. When the centrifuge spins at high speeds, the denser RBCs migrate to the bottom, while the plasma rises to the top.
3. **Measurement:** The hematocrit percentage is determined by measuring the volume of RBCs relative to the total volume of the blood sample.

Hematocrit Centrifuge:

HEMATOKRIT 210



Applications of Hematocrit Centrifuges

1. **Anemia Diagnosis:** Hematocrit centrifuges aid in identifying anemia, a condition characterized by low RBC levels. This is vital for early intervention and treatment.
2. **Blood Donation Centers:** Hematocrit measurements are used to assess donor eligibility, ensuring the safety of both donors and recipients.
3. **Hematology Research:** Researchers rely on hematocrit centrifuges to isolate blood components for in-depth studies related to blood disorders and diseases.

Microbiology Department: 1-Incubator

It is used in the microbiology laboratory for the following:

- Growing bacteria, fungi, and other microorganisms.
- Storing biological specimens before analysis in medical laboratories.
- Performing functions such as shaking, sterilization, and storage.



2-Hot air oven

It is used for sterilization of laboratory equipment such as glassware (flasks, pipettes, Petri-plates, and test tubes), metal items (forceps, spatula, scalpel, scissors), non-volatile compounds (zinc and starch powder, sulfonamide), and other materials that contain oils.



3-ELISA reader & Washer

Application:

- Presence of antigen or the presence of antibody in a sample can be evaluated.
- Determination of serum antibody concentrations in a virus test.
- Used in the food industry when detecting potential food allergens.
- Applied in disease outbreaks- tracking the spread of disease e.g. HIV, bird flu,
- common, colds, cholera, STD etc.



4-Loop Sterilizer

Loop sterilizers are designed to sterilize metal inoculating loops and needles without using an open flame. With an electric heat source, these devices eliminate any hazards common with gas and open flames making the environment safer for personnel. The features prevent infectious spatter & cross-contamination.



5-Antibiotic Disc Dispenser

It is used to test the antibiotic sensitivity of a bacterial isolate by disc diffusion. When testing a conventional antibiotic, this involves creating a lawn of bacteria on an agar plate and then placing an antibiotic disc or discs onto the lawn before incubation overnight.



6-Anaerobic Jar

It is used to culture bacteria that die or fail to grow in the presence of oxygen (anaerobes).



7-Fume Hood

It is used when working with toxic compounds or compounds with a low boiling point.



8-Biosafety Cabinet

- The primary purpose of biosafety cabinets is to protect the laboratory personnel and the environment from the pathogenic microorganism as aerosols might be formed during the processing of such microorganisms.
- Biosafety cabinets are only used for certain risk group organisms and for processes that might result in aerosol formation.



9-Autoclave

It uses steam, pressure, and time to kill microorganisms and spores. Used for:

- Sterilization of culture media, reagents, and equipment.
- Decontaminating biohazardous waste materials.



10-Microscope

It is used for:

Viewing specimens that are too small to be seen with the naked eye, such as germs, bacteria, parasites, and fungi.



Kowa AP-S000



Product description of KOWA AP-5000

AP-5000 - what is it?

Ophthalmic perimeters — high quality medical equipment that is used daily by doctors worldwide, helping thousands of patients. The presented model AP-5000 is created by KOWA using modern technology.

AP-5000 has the following advantages:

- reliability;
- efficiency;
- accuracy and informativeness;
- easiness in operation;
- trust and recognition from doctors around the world.

What AP-5000 is needed for? Ophthalmic perimeters - important devices for equipping medical institutions and doctors' offices. The latest equipment allows to expand the list of services for clients, improves the quality of service. The devices contribute to the improvement of patients' condition and guarantee comfortable work of specialists.

MAC™ 2000 ECG



The GE MAC 2000 Interpretive ECG is one of GE's newest MAC series machines, and it boasts a host of features that makes it worthy of being held in the same high esteem as the legendary MAC5500. With a beautiful 7" color display, new one touch operation that makes it simple to take an EKG, and easy connectivity to General Electric's MUSE ECG Management system, you can't go wrong with this cardiograph.

With new tools such as Hook Up Advisor, you can easily identify quality signals before they are acquired, avoiding repeat ECG's and cutting down on pesky artifacts. This allows you to focus on your patients and give them the best clinical diagnosis available from the very start. With a wide range of connectivity options, no matter what your EMR or ECG management system, you will likely be able to connect painlessly, making it easy on your Biomed Techs and IT staff. Comes with storage of up to 200 ECG's internally, PDF and XML export capabilities, and paperless workflow options for facilities that are looking to go green and cut out the need for paper reports.

Dentistry



03

1-CBCT diagnostic imaging and software



Uses in dental imaging studies:

Cone Beam Computed Tomography (CBCT) is pivotal in dental research due to its high-resolution, three-dimensional imaging capabilities, enabling detailed assessment and treatment planning. In implant dentistry, CBCT allows for precise measurement of bone quality and virtual implant placement, while in orthodontics, it aids in 3D cephalometric analysis and evaluation of airway spaces. Endodontic research benefits from CBCT's ability to detect root fractures and complex canal anatomies, whereas periodontology utilizes it to assess bone defects and plan regenerative procedures. For oral and maxillofacial surgery, CBCT provides detailed images for trauma assessment, pathology evaluation, and orthognathic surgery planning.

2-Orthopantomograph (OPG)



Orthopantomograph (OPG) and cephalometric imaging are invaluable in dental research for their distinct diagnostic capabilities. OPG offers a comprehensive panoramic view of the entire mouth, aiding in the general assessment of dental and periodontal health, detection of pathologies such as cysts and tumors, evaluation of jaw fractures, and planning for implants and orthodontic treatments. Cephalometric imaging, particularly lateral cephalograms, provides detailed side-view images of craniofacial structures, essential for orthodontic diagnosis, treatment planning, growth assessment, and surgical planning, including the evaluation of airway dimensions for sleep apnea studies. These imaging modalities enhance the accuracy and depth of dental research by enabling precise analysis and documentation of complex dental and skeletal relationships.

3-Dental Laboratories



Dental laboratories are integral to research studies, providing essential resources and expertise for investigating various aspects of dental materials and techniques. These facilities support research endeavors by conducting rigorous material testing, prototyping and fabricating dental appliances using cutting-edge technologies like CAD/CAM and 3D printing, biomechanical studies to assess the durability and functionality of dental restorations, and developing innovative techniques to enhance clinical outcomes. Moreover, dental laboratories contribute to quality control measures ensuring the reliability and consistency of dental products, while also fostering collaborative research initiatives with academic institutions and industry partners to advance dental science and technology.

4-nMaster 2.0



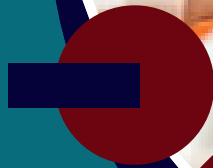
nMaster 2.0 assists researchers in determining the appropriate number of subjects or data points needed to achieve statistical power and precision in their studies. This software likely considers various factors such as the desired level of confidence, expected effect size, variability of the data, and statistical tests to be employed.

5-Intra-oral radiographs



Intra-oral radiographs serve as invaluable tools for investigating various aspects of oral health and disease. Researchers utilize these radiographs to assess the prevalence and severity of dental caries, periodontal conditions, and other oral pathologies within study populations. Additionally, intra-oral radiographs facilitate the evaluation of treatment outcomes and the effectiveness of preventive measures by providing detailed visualizations of dental structures before and after interventions.

Pharmacy



024

1-Strirrer



Use in research:

Used to mix or disperse fluids in a container.

2-Centrifuge



Use in research:

Used for separation of fluids based on density.

3-Refrigerator



Use in research:

Used to store samples at a specific temperature.

4-Spectrophotometer



Use in research:

Measure the amount of light that a sample absorbs.

5-Micropipette



Use in research:

Used to measure small amounts of liquids with a volume range between 1 and 1000ml.

6-Safety Cabinet



Use in research:

Used to protect personnel against biohazards or infectious.

7-Bunsen burner



Use in research:

Used to heat substances, combust substances and to sterilize objects on high heat.

8-Oven



Use in research:

Used for high-volume thermal convection applications.

9-Incubator



Use in research:

Used to grow and maintain microbiological or cell cultures.

10-Distilled Water Machine



Use in research:

It turns water into steam to remove fluoride, arsenic, lead, viruses, and other contaminants.

11-Microscope



Use in research:
Used to magnify small objects.

12-Blender



Use in research:
Used to mix, purée, or emulsify a substance.

13-Refrigerator Centrifuge



Use in research:
Is a high speed centrifuge for medium capacity needs.

14-Water Purification System



Use in research:
Is to provide clean drinking water.

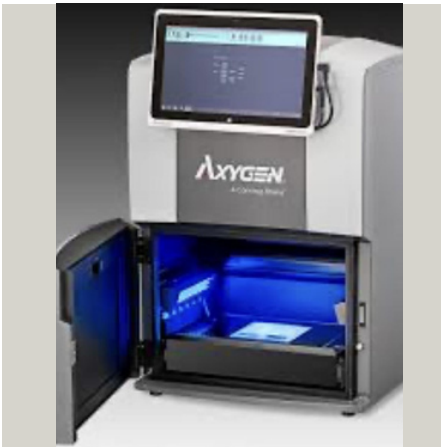
15-Microfuge Refrigerator



Use in research:

Used for phase separation of nanomaterials.

16-Gel Documentation System



Use in research:

Its used to record and analyze the results of gel electrophoresis and membrane blotting experiments.

17-Semi-dry Blotter



Use in research:

Identify specific proteins from a complex mixture of proteins extracted from cells.

18-Gyro Rocker



Use in research:

Used for biological mixing applications in various laboratories and testing labs.

19-Slides Warmer



Use in research:

Used to warm slides to a specified temperature for safe fixing, drying, and staining of samples.

20-Shaking Water Bath



Use in research:

Ideal for thawing, heating, mixing and shaking samples.

21-Microscope with Digital Camera



Use in research:

Used for inspection and analysis of micro objects and samples that are too small to observe.

22-Fluorescence Microscope



Use in research:

Its used to observe the localization of molecules within cells, and of cells within tissues.

23-Microplate Washer



Use in research:

Used to control the procedure of washing experimental samples arranged in plate-based formats.

24-HPLC



Use in research:

Used to identify, quantify and purify the individual components of the mixture.

25-Robo Spin Timer



Use in research:
Timer.

26-CO2 Incubator



Use in research:
Laboratory equipment used for cell culture.

27-Deep Freezer



Use in research:

Used For storing Blood Samples and Medical samples.

28-Autoclave



Use in research:

Used to decontaminate certain biological waste and sterilize media, instruments and lab ware.

29-Digital Sherringtons Recording Drum



Use in research:

Displaying the effects of the drugs.

30-Organ Bath



Use in research:

Investigate nerve-muscle interactions and the contractility of smooth, cardiac, or skeletal muscles.

31-Multiple Activity Cage



Use in research:

A device used to measure the level of physical activity in animals.

32-Blood Pressure Recorder



Use in research:

Recording blood pressure.

33-Hot/Cold Plate



Use in research:

Measure the nociceptive threshold of analgesic compounds in mice.

34-Metabolic Cage



Use in research:

Used to collect and separate rat's urine and feces and allows measurement of their food and water intake for qualitative and quantitative studies.

35-Rotatory Microtome



Use in research:

Making microscopic preparations for subsequent illumination.

36-Rotatory Evaporator



Use in research:

Used for the efficient and gentle removal of solvents from samples by evaporation.

37-Capsule Filling



Use in research:
To fill empty capsules with pharmaceutical ingredients.

38-Tablet Compression



Use in research:
For production of simple and precise tablets from powder in Pharmaceutical and relevant Industries for research and development.

39-Disintegration Tester



Use in research:

Used to show how quickly the tablet breaks down into smaller particles.

40-Hardness Tester



Use in research:

To determine the breaking point or the force required to break a tablet.

41-Friability Tester



Use in research:

Used to measure difference between the weight of the sample before and after the process in order to check the physical strength of uncoated tablets.

42-Dissolution Tester



Use in research:

Measures the extent and rate of solution formation from a dosage form.

Nursing

05

1-Stethoscope



Its a medical instrument used to listen to sound within the body, particularly the heart, lungs, and intestines. It typically consists of two earpieces connected by flexible tubing to a chest piece or diaphragm. The diaphragm is placed against the patient's body to transmit sounds to the doctors or nurses' ears.



2-Penlight



Is a small handheld flashlight used by medical staff to examine patients' eyes, ears, throat, and other areas during physical examinations. It typically has a compact design, often with a metal or plastic body, and a clip for easy attachment to a pocket or medical coat. The light emitted is usually focused and bright enough to illuminate specific areas for examination.

3. Thermometer: Glass



Is a traditional temperature-measuring device consisting of a liquid (mercury) that expands and contracts with changes in temperature. The tube is marked with a scale indicating temperature increments. To measure temperature, the thermometer is placed in the area to be measured, and the temperature is read where the liquid level stabilizes.



4-Thermometer: Electronic



- Is a modern temperature-measuring device that uses electronic sensors to detect and display temperature reading. It typically consists of a handheld unit with digital display and a temperature probe. The probe is placed in the area to be measured, and the temperature is quickly and accurately displayed on the digital screen. Electronic thermometers often offer features such as memory recall, fever alerts, and the ability to measure temperature in Fahrenheit or Celsius.

5-Blood Pressure Device



Is a medical instrument used to measure blood pressure. It typically consists of an inflatable cuff that is wrapped around the upper arm, a pressure gauge to measure pressure, and bulb to inflate the cuff. The cuff is inflated to temporarily stop the flow of blood in the arm, and then slowly released while the pressure is measured.



6-Pulse Oximeter



Is a small device that clips on to a fingertip, typically the index finger, to measure the oxygen saturation level in your blood and your heart rate. It works by emitting light into the blood vessels and measuring the amount of light absorbed, which correlates with the oxygen.

7-Dinamap



Is a brand of Vital sign monitor used in medical settings to measure various physiological parameters such as blood pressure, pulse rate, and temperature. It typically consists of a monitor unit and various sensors that are attached to the patient. The monitor displays real-time data and can provide continuous monitoring during medical procedures or in critical care settings. Dinamap monitors are known for their accuracy and reliability in measuring vital signs.



8-Blood Glucose Monitor



Commonly referred to as a Glucometer, is a portable electronic device used by people with diabetes to measure their blood sugar levels. It typically consists of a meter that displays the blood glucose level and lancet device for obtaining a small blood sample, usually from a fingertip. Users prick their finger, place a drop of blood on a test strip, and insert the strip into the meter for analysis.

9-Height & Weight Scale



Hospital weight and height scale typically consists of a stand-in platform with a height measurement rod attached to it. Patients stand on the platform, which measures their weight. While the height rod measures their height. The height measurement is usually indicated by a moving marker along the height rod.



10- MANNIKINS: Tracheostomy



Tracheostomy care simulator.

11- Arm Kit



Male multi-Venous IV training.

12-Anne with Skillguide



Resuscitation.

13-Junior (Child) with Skillguide



Resuscitation.

14-Trichistomy



15-Nursing baby



Nursing baby w/ vital sim.



16-Nursing Kid



Nursing kid w/ vital sim.

17-Geriatric Patient



Geriatric Patient Care Manikin.

18-NOELLE® MATERNAL AND NEONATAL



**SIMULATOR BIRTHING
NOELLE® MATERNAL AND
NEONATAL - CAT: \$554,100
GAUMARD SCIENT.**

19-Manikin Airway



AIRWAY MANAGEMENT
TRAINER, LAERDAL

20-Manikin Nursing Kid



MANIKIN NURSING KID WITH
SIMPAD, LAERDAL

21-Manikin Nursing Baby



MANIKIN NURSING BABY WITH
SIMPAD, LAERDAL vital signs.

22-IV Arm



MANIKIN IV TORSO, LAERDA I
090019

23-Manikin Nursing Anne



MANIKIN NURSING ANNE
W/SIMPAD, LAERDAL
3250505020030033

24-Manikin Nursing Kelly



MANIKIN NURSING KELLY
W/SIMPAD, LAERDAL
30005050+20030033

25-GD/H111-20GENERAL DOCTOR, CHINA #GENERAL DOCTOR, CH



ADVANCED TRAUMA
ACCESSORIES,

26-GD/H111-20GENERAL DOCTOR, CHINA #GENERAL DOCTOR, CH



ADVANCED TRAUMA
ACCESSORIES, GD/H111-
20GENERAL DOCTOR, CHINA
#GENERAL DOCTOR, CH

29-GD/H111-20GENERAL DOCTOR, CHINA #GENERAL DOCTOR, CH



SIMULATOR LEOPOLD
MANEUVERS



30-GD/H111-20GENERAL DOCTOR, CHINA #GENERAL DOCTOR, CH



MANIKIN TRAUMA NURSING
CARE, GD/H111GENERAL
DOCTOR, CHINA #GENERAL
DOCTOR, CHINA

31-GD/F30P GENERAL DOCTOR, CHINA #GENERAL DOCTOR, C



MANIKIN TRAUMA NURSING
CARE, GD/H111 GENERAL
DOCTOR, CHINA #GENERAL
DOCTOR, CHINA

32-GD/F30P GENERAL DOCTOR, CHINA #GENERAL DOCTOR, C



MODEL GYNECOLOGICAL
EXAMINATION

33-GD/FT335GENERAL DOCTOR



MODEL GYNECOLOGICAL
EXAMINATION

34-GD/FT335GENERAL DOCTOR



MANIKIN ADVANCED FULL
FUNCTIONAL NEONATAL
NURSING & CPR.

35-GD/FT335GENERAL DOCTOR



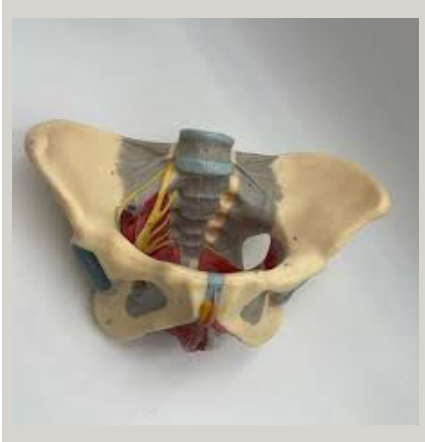
MANIKIN ADVANCED FULL
FUNCTIONAL NEONATAL
NURSING & CPR.

36-GD/A15106GENERAL DOCTOR, CHINA #GENERAL DOCTOR, CHINA



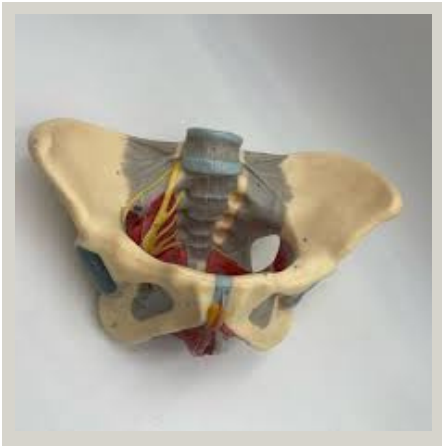
MANIKIN ADVANCED FULL
FUNCTIONAL NEONATAL
NURSING & CPR,
GD/FT335GENERAL DOCTOR

37-GD/A15106GENERAL DOCTOR, CHINA
#GENERAL DOCTOR, CHINA



MANIKIN FEMALE PELVIS

36-GD/A15106GENERAL DOCTOR,
CHINA #GENERAL DOCTOR, CHINA



MANIKIN FEMALE PELVIS

**37-GD/A11127GENERAL DOCTOR, CHINA
#GENERAL DOCTOR, CHINA**



MANIKIN FEMALE PELVIS

**38-GD/A11127GENERAL DOCTOR,
CHINA #GENERAL DOCTOR, CHINA**



MANIKIN FEMALE PELVIS

39-GD/H128GENERAL DOCTOR, CHINA

#GENERAL DOCTOR, CHINA



MANIKIN ADVANCED NURSING

40-GD/H128GENERAL DOCTOR, CHINA

#GENERAL DOCTOR, CHINA



MANIKIN ADVANCED NURSING

41-GD/H128GENERAL DOCTOR, CHINA

#GENERAL DOCTOR, CHINA



MANIKIN ADVANCED NURSING

42-GD/FT333GENERAL



ADVANCED MULTI-FUNCTIONAL THREE YEAR OLD CHILD NURSING MANIKIN.

43-GD/FT333GENERAL



ADVANCED MULTI-
FUNCTIONAL THREE YEAR OLD
CHILD NURSING MANIKIN,
GD/FT333GENERAL

44-GD/FT333GENERAL



ADVANCED MULTI-
FUNCTIONAL THREE YEAR OLD
CHILD NURSING MANIKIN,
GD/FT333GENERAL

45-GD/FT330



Highly Intelligent infant simulator

46-Manikin GD/HS10A



For intramuscular injection

47-GD/H130



Baby manikin

48-GD/H130



Baby manikin

Physical Therapy



006

1-Biodex Balance System (BBS)



Uses:

- BBS is used for measurement and training for postural balance.
- Static and dynamic balance can be measured with twelve levels of platform control.
- Balance training includes proprioception and stabilization exercise, range of motion, and weight shift exercises.
- The data can be printed with colored reports and uploaded to USB.
- Serve a variety of cases; athletes, orthopedic, neurological, pediatric...
- Effective fall risk screening and conditioning program for older adults.

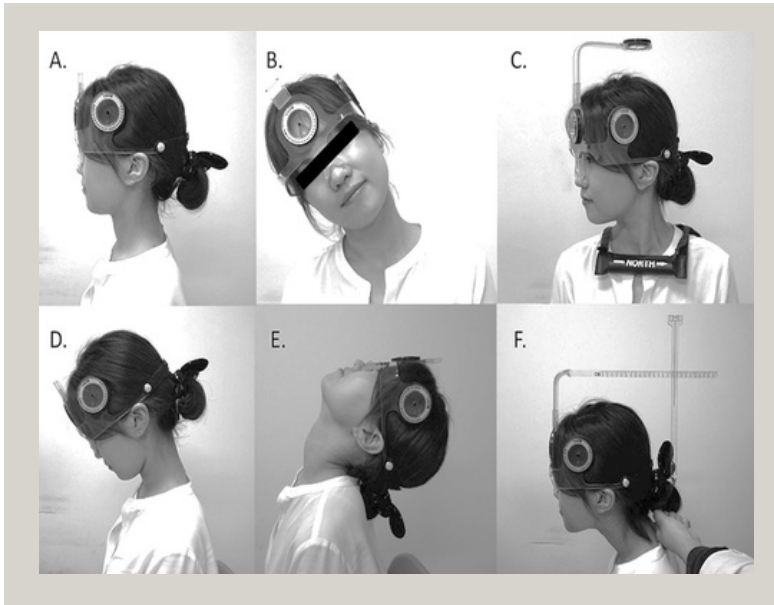
2-Foot Pressure scan (Meta Scan)



Uses:

- Foot Pressure scan is a precise platform for foot scanning, capturing all relevant data and specialized graphs essential for foot pressure analysis.
- Analyze the pressure distribution on the feet while standing, walking, or running.
- It involves specialized sensors embedded in a thin mat or insoles that measure the force exerted by the feet in real time.
- This data helps in assessing foot function, diagnosing gait abnormalities, and designing custom orthotics or footwear to address specific issues such as foot pain or imbalance.

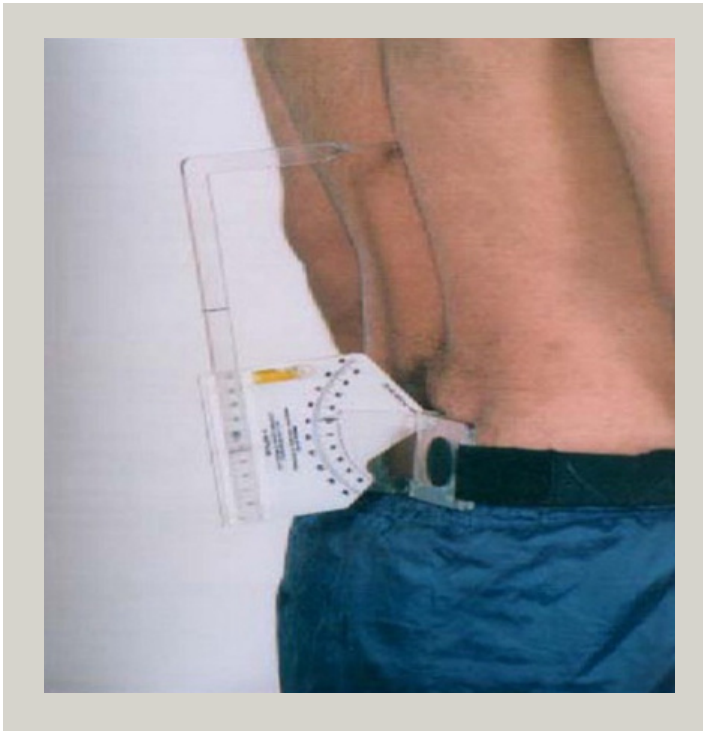
3-Cervical Range of Motion (CROM)



Uses:

- CROM is accurate too to measure the range of cervical movement.
- It looks like the eyeglasses, aligned on the nose and ears, fastened to the head by a velcro strap.
- Three dial angle meters are used to take most of the measurements. The sagittal plane meter and lateral flexion meter are gravity meters. The rotational meter is magnetic and responds quickly to the shoulder-mounted magnetic yoke.

4-Back Range of Motion (BROM)



Uses:

- Assess the back range of motion.

5-Inclinometer



Uses:

- Inclinometer is a device used to measure the joint range of motion (ROM) angles.
- It has a housing that contains a sensor. This sensor is sensitive to gravity and measures the angle of the housing.
- It contains a 360° rotation bubble vial.
- It is easy to apply on one limb of the measured joint.

6-Dynamometer



Uses:

- Handheld Dynamometry is a hydraulic device hold by the hand to measure the grip strength, which is the force exerted by the hand muscles when squeezing the dynamometer.
- It typically consists of a handle connected to a spring-loaded mechanism or strain gauge that registers the amount of force applied in Kg.
- Hand dynamometers are commonly used in clinical settings, sports medicine, and research to assess hand strength, monitor progress in rehabilitation programs, and evaluate functional abilities related to activities of daily living

7-Pain Pressure Algometer (PPA)



Uses:

- PPA is a digital dynamometer device with flat rubber tip (1 cm²)
- Used to measure pressure pain threshold and expressed in Newton.
- Pressure algometry is a reliable measure of pain in muscles, fascia, joints, tendons, ligaments, and the periosteum.
- The device provides bi-directional USB/RS232 output for logging data or plotting curves in computer, and Auto-Calibration permits calibration with only one test weight.

8-Sit and Reach Box



Uses:

- The Sit and Reach Box test measures the flexibility of the lower back and hamstring muscles.
- To test the flexibility, the subject places their feet against the box, then reaches forward as far as possible keeping their knees touching the floor. Subject's hands push the finger plate along the top of the tester as possible, the flexibility expressed in cm.
- This device is a 12-1085 standard flexibility tester and provides 3 popular scales and a basic procedure.

9-Skin Caliper



Uses:

- Measure skin fold thickness.

10-Kinesiology Electromyography (EMG)



Uses:

- Measures the electrical activity produced by muscles during movement.
- EMG provides valuable insights into muscle activation patterns, timing, and coordination.
- This information is crucial for understanding muscle function, assessing movement disorders, and designing effective rehabilitation or training programs.

11-Treadmill



Uses:

- Measuring cardiovascular fitness.

12-Spirometry



Uses:

- Advanced pulmonary function testing device designed for accurate and comprehensive assessment of lung function.
- This spirometer is used to measure various parameters of respiratory function, including forced vital capacity (FVC), forced expiratory volume in one second (FEV1), and peak expiratory flow (PEF).

Occupational Therapy



07

1-Baseline 7 Piece Hand Evaluation Kit



Uses:

Necessary to measure hand strength and range of motion, the Evaluation set comes in a portable carrying case with all the needed instruments. Available in 300 lb. or 200 lb. kit.

2-Jamar Hydraulic Hand Dynamometer



Uses:

The Jamar Hydraulic Hand Dynamometer offers accurate and reliable measurements, assisting clinicians in assessing hand strength with precision.

3-Martin Vigorimeter Measuring Instrument



Uses:
Martin Physiotherapy Measuring Instrument. Used for pressure testing of patient grip strength Includes 3 sizes of rubber bulbs Supplied in plastic storage box.

4-Assessment Pegboard with Coloured Pegs 25 hole



Uses:
Pegboards are a great tool to encourage fine motor skill development as well as visual perceptual skills! Through the use of using pegboards.

5-Measurement Volumeter Hand Set



Uses:

The volumeter is designed to objectively measure volume of the body part by using the fluid displacement method.

6-Depth Perception Pegboard Set



Uses:

The Depth Perception Pegboard Set stimulates depth perception and eye-hand coordination on two levels.

7-Discrimination Hot/Cold Kit



Uses:

Hot and Cold Discrimination Kit is designed to assess temperature discrimination by a simple, accurate and quantifiable method. Ideal for pediatric use, this product is quick, painless and easy to use.

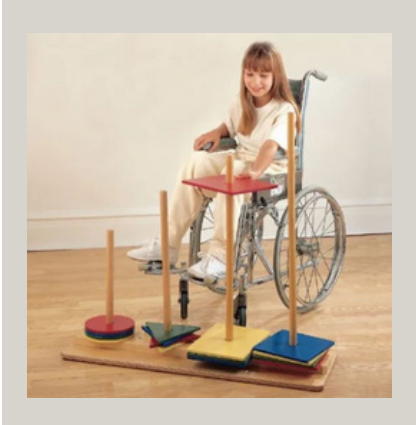
8-Sensation Monofilament Kit

Uses:

A monofilament test is a simple and common method used to assess the sensation in a patient's foot, particularly in those with diabetes



9-Cognitoys Set



Uses:

Cognitoys Set helps children and adults with cognitive and physical issues increase their reach, range of motion, mid-line crossing, coordination, upper extremity strength, and endurance through graded, repetitive training. To encourage color and shape recognition, the foam shapes can be applied in a variety of ways or games.

10-BaFPE (BAY AREA Functional Performance Evaluation)



Uses:

BaFPE... Bay Area Functional Performance Evaluation... A two-part, behaviorally-anchored assessment designed to assess how a client may function in task-oriented and social interactional settings. The Task Oriented Assessment (TOA) utilizes five tasks in which twelve functional parameters in cognitive, performance, and affective areas are rated

11-Sensory Integration and Praxis Test (SIPT)



Uses:

The SIPT (Ayres 1989) is one test battery used to assess for sensory integration difficulties. It is a collection of 17 tests designed to test various aspects of sensory perception, discrimination, reactivity and contribution to our praxis and ability to participate in everyday life.

12-Sensory profile (SP)



Uses:

The Sensory Profile™ 2 family of assessments provides standardized tools to help evaluate a child's sensory processing patterns in the context of home, school, and community-based activities. Guidance on using this test in your telepractice.

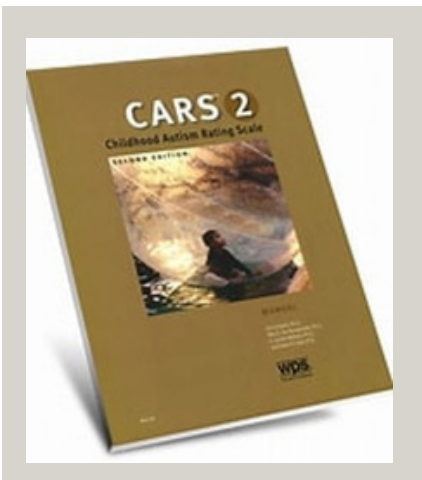
13-Allen Cognitive Level Test (ACL)



Uses:

The Allen Cognitive Level Screen (ACLS) is an evidence-based, standardized screening assessment of functional cognition developed within the framework of the cognitive disabilities model.

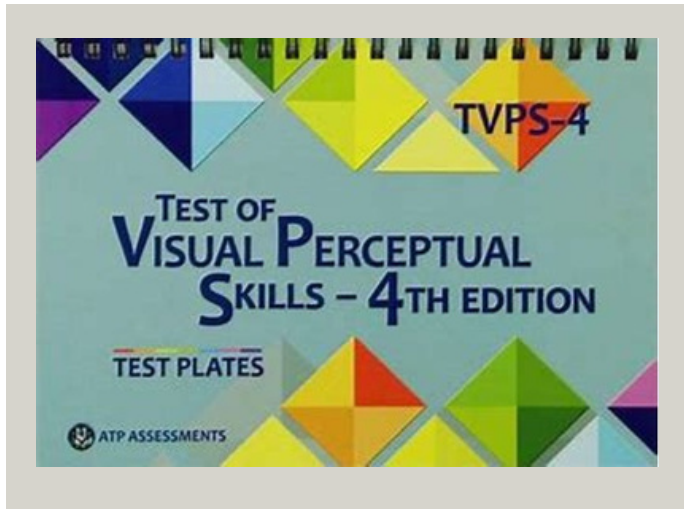
14-Childhood Autism Rating Scal, Second Edition (CARS™-2)



Uses:

Childhood Autism Rating Scale - Second Edition (CARS2) is a brief rating scale that helps identify autism in children. CARS2 offers an easy-to-use tool that helps distinguish from developmentally disabled children who are not autistic, giving quantifiable ratings based on direct behaviour observation.

15-(TVPS-4) Test of Visual Perception Skills 4th Edition



Uses:

Assesses visual-perceptual strengths and weaknesses, using a response format suitable for all children, including those with disabilities.

Respiratory Therapy



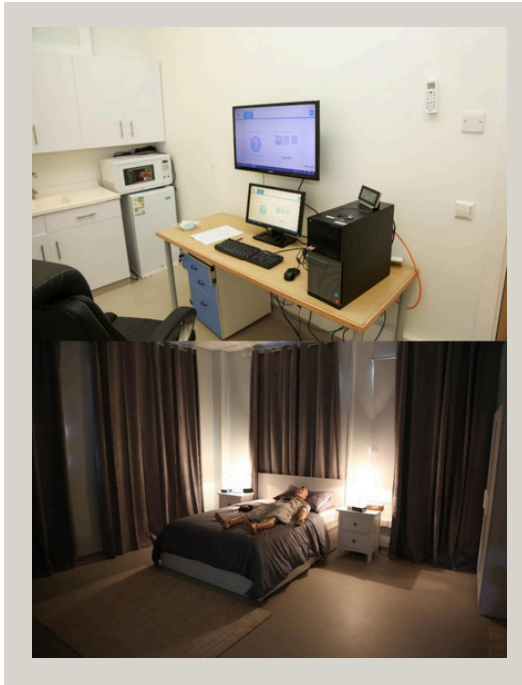
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Pulmonary Function Test Lab



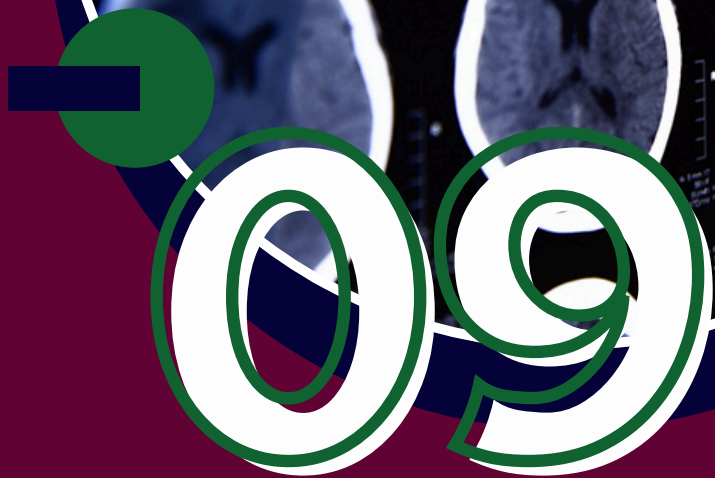
Pulmonary Function Test (PFT) is a comprehensive evaluation conducted to assess the functioning of the respiratory system, particularly the lungs. It is a valuable diagnostic tool used by healthcare professionals to diagnose various respiratory conditions such as asthma, chronic obstructive pulmonary disease (COPD), and pulmonary fibrosis, among others. Patients may be required to perform specific breathing maneuvers, such as deep inhalations and forceful exhalations, to obtain accurate results. Throughout the testing process, the healthcare provider closely monitors the patient's performance and provides instructions and encouragement as needed.

Polysomnography



Polysomnography (PSG) is a sleep study conducted to evaluate various physiological parameters during sleep. It's a valuable diagnostic tool used to diagnose sleep disorders and assess overall sleep quality. It is a valuable tool for diagnosing sleep disorders such as obstructive sleep apnea, narcolepsy, restless legs syndrome, and REM sleep behavior disorder, among others. By monitoring various physiological parameters during sleep, PSG helps healthcare providers understand the underlying causes of sleep disturbances and develop appropriate treatment plans to improve sleep quality and overall health.

Radiological Sciences



1-Ultrasound Machine



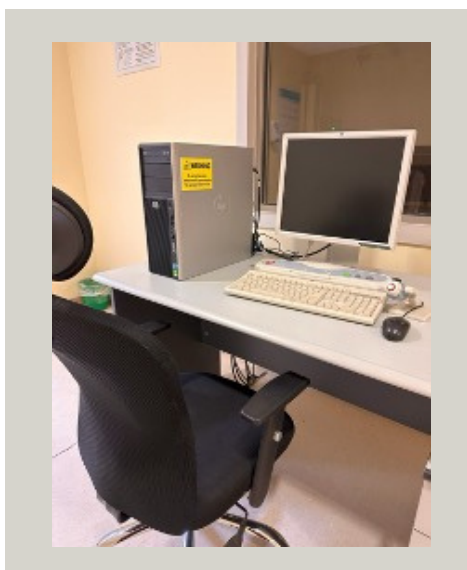
2-Ultrasound Phantoms



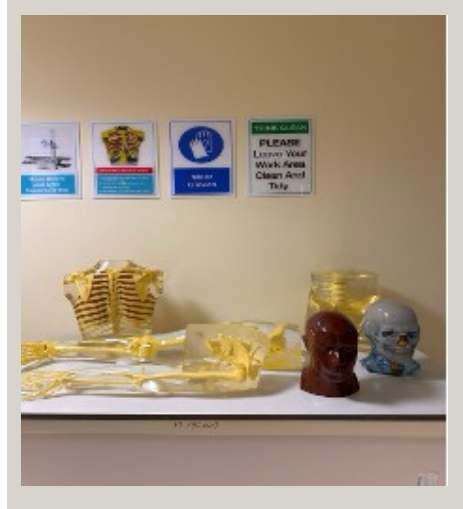
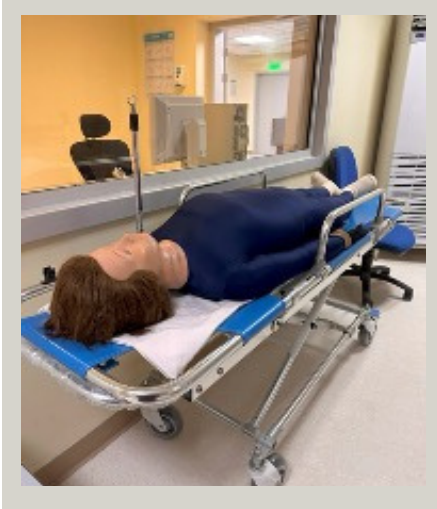
Ultrasound machine and phantom:

- Ultrasound machine with three different transducers to be used for three different diagnostic ultrasound examinations.
- Five different phantoms; fetal phantom, breast phantom, abdominal phantom, gynecology phantom and lumbar phantom for needle guided ultrasound procedure.
- Monitor for display.
- PC station for image review and group discussion

3-X-RAY Machine



4-X-Ray Phantoms



X-Ray Machine and Phantoms



Major components of an x-ray system:

the power generator, x-ray tube, collimator, tube stand, monitor, wall stand and radiographic table.

X-ray Room is shielded walls, contains x-ray glass control window for safety & a clear view of patient and procedures, and shielded door(s).

- Many transparent phantoms: skull, chest, pelvis, upper & lower limbs.
- Many Lead aprons and thyroid shields.

5-X-ray simulator for medical physics



X-ray simulator including:

- 1. Collimator
- 2. Calibration target
- 3. The X-ray energy detector with a Si- PIN photodiode
- 4. A multichannel analyzer
- 5. PC station for recording the X-ray energy spectrum
- 6. The connection cable and power supply



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