

## Firm Profile



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International Healthcare Development (IHD) is healthcare consultancy and project management firm that is headquartered in Dubai, United Arab Emirates. We offer a wide range of healthcare consultancy and project management services that are geared towards providing comprehensive, overall solutions for an integrated Healthcare Community.



### ***Areas of Expertise***

We specialize in the provision of a wide range of specialty services that support end-users, consulting firms as well as contractors and that lead to the development, design, renovation, construction and operations of all types of healthcare facilities from Primary Care Centers to Multi-Specialty Tertiary Hospitals to a Network of Facilities. Our scope of services includes:

- **Healthcare consulting**
- **Strategic Planning**
- **Healthcare Program and Project Management**
- **Medical Planning**
- **Healthcare Facilities Planning and Design**
- **Medical Equipment & Furniture Planning, Procurement and Construction Administration**
- **Health Informatics Consulting, Planning, Project Management and Outsourcing**

## **BENEFITS OF USING** IHD

### **Regional Expertize with Commitment to our Clients**

Our value added proposition is that all of our experts are located in the region with strong commitment and loyalty to our clients. Our Independence from hardware and software providers ensures that unbiased and impartial advice is always offered to our clients.

To bring best of breed systems to our region, a gap in culture and user expectations always exists between multinational solution providers and our clients. This is why projects fail or go beyond anticipated time, budgets, and outcomes.

We bridge that gap by being part of the culture and on top of the technology. We minimize the risk by better understanding our clients' requirements and achieving the desired outcomes effectively.

IHD's comprehensive services bridge the gap between the client and vendors. We work on behalf of the client addressing all healthcare and business technology requirements of solutions and infrastructure

### **Experienced In-house Team in health planning and health informatics**

IHD is unique in having a strong in-house team of Health informatics experts that work hand in hand with the healthcare planning and the medical equipment planning teams to deliver complete solutions to our clients. Our combined team has the required experience in healthcare systems and standards including HIS, PACS, RIS, LIS, DICOM, HL7 and Instrument Interfacing; with hand on experience in Open Engine HL7 interface and CCL.

- We look carefully across all functions and deeply into a specific area of concern to identify and plan for enhancements.
- Our team of analysts studies trends and best practices in healthcare services and quickly translates findings into meaningful strategies and tactics for our clients to leverage in the context of a broader Performance Assessment.

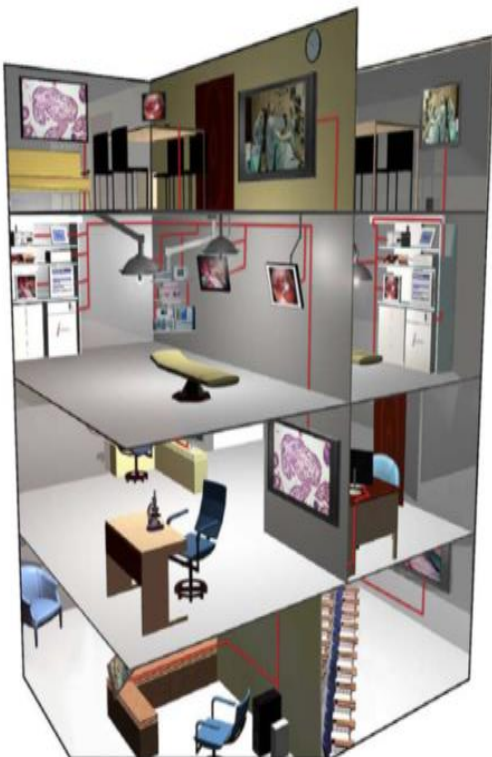


## Experienced In-house Team in Systems and Device Integration

Building a Clinical integration is complicated and at the same time very tedious. It requires in-depth knowledge of clinical processes as well extensive previous experience in vendor implementations. It also requires deep understanding of each vendor's configuration options and how to ensure that what is needed will be included without the need for customization or additional expenditures.

Another important integration issue in health facilities is with regards to linking medical devices with the HIMS system for quick retrieval, access and reporting of patient vital signs data. IHD Services can provide a wide range of integration consultancy services for medical equipment integration and automated data collection with EMR such as Vital Signs monitors, Point of Care Systems, etc.

We are uniquely qualified in having expertise in application integration as well as integration of all other non-applications systems. We can effectively project manage the process to make sure the implementation is carried out on time and within budget.



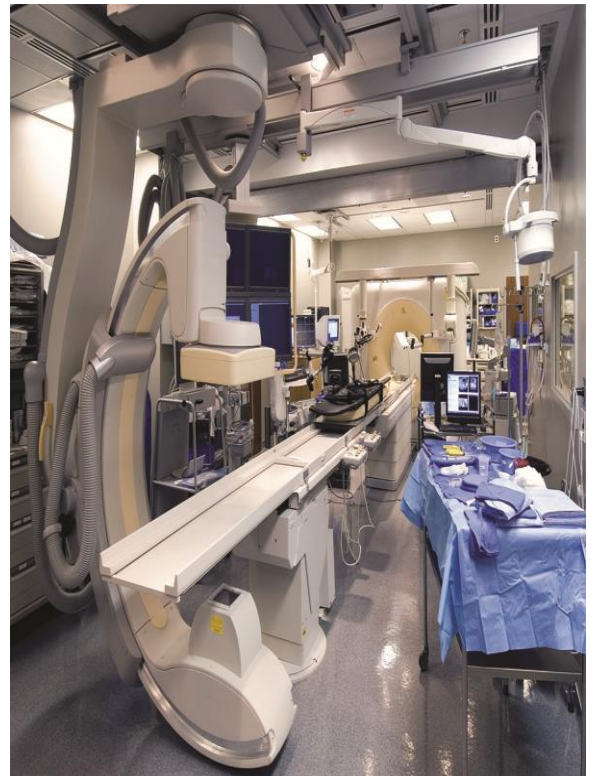
## Concept and Philosophy

We work with our clients to understand their vision for the facility. We analyze all factors relevant to the project and provide a fully documented proposal. The advantages to our clients are:

- Unbiased analysis and selection of equipment to provide the best possible solution;
- Detailed, cost proposals for equipping a development
- We will be responsible for coordinating with your architects and consultants, giving the client a single point of reference.
- Ensuring that the appropriate technical detail is obtained from manufacturers and integrated into your particular design requirements;
- Freeing up the valuable time of clinical and administrative staff so they can get on with the essential task of providing healthcare services; and
- A structured coordination and reporting system that will take into account your needs and provide you with regular updates on our progress.

## Clinical Specialties

IHD staff have expertise in various areas such as Clinical, healthcare administration, healthcare informatics, we have full working knowledge of all specialized areas within healthcare facilities and in the past have given advice on the following areas amongst others:- General Medicine ,Oncology, Orthopedics, Radiography, Spinal injuries, Neurology, Intensive Treatment units (Neonatal, Cardiac -Trauma - post major surgery), Theatres - recovery, Rehabilitation Simulation Centers, Education departments within teaching hospitals, Sterile supplies, Pharmacy clean rooms and production pharmacies including Radio-Pharmacy. Plus all general areas within hospitals: Physiotherapy, Rehabilitation, Dialysis units, Surgical / Medical wards and Emergency rooms..



## Benefits of our Approach

Our team of consultants and associates has substantial experience in development, refurbishment, scheduling and equipping of hospitals and other healthcare facilities from simple General Practitioner Clinics through to complex large teaching hospitals.

- **Clinical:** A fit for purpose facility which complies with the Standards being used in the facility e.g. AIA / FGI (American Standards), HTM's HBN's (British Standards), ACI (Canadian Standards), Other International Standards.
- **Technical & Financial:** A robust modern, flexible and easily maintained solution. Modeling and Value for money.
- **Totality:** Through the use of our unique web based Planning and Project Management Program **Pequip**, all project requirements are captured and integrated in a *unified database* that stores all MEP requirements per component, AutoCAD Blocks, specifications in CSI or tabular formats, room data sheets, budgeting at every level, procurement strategies, *electronic tendering*, site preparation requirements and site project / construction management. Moreover, the program has a bi-directional interface with AutoCAD which ensures consistency and produces an endless amount of customized reports and schedules.

## Comprehensive Services

Our services are rendered either individually or part of a turnkey solution aimed at providing the appropriate tools for healthcare institutions to operate their facilities.

### Health Facilities Planning and Design

#### ➤ Service planning requirements

We ensure we understand and document the range and mix of services and key issues influencing them. We carefully consider the viability and scope of services and the relationship with other healthcare facilities and agencies in order to enable effective planning

#### ➤ Assessment of Demand and Sizing of Services

An overview of requirements, quantifying key variables such as in-patient bed numbers, mix of clinical specialties, clinic support services and auxiliary services

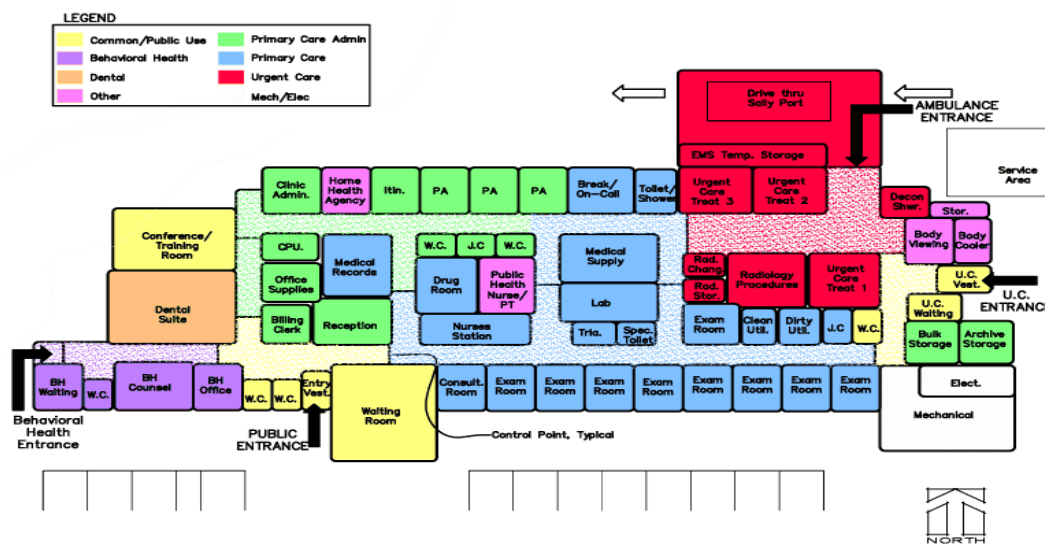
#### ➤ Location and site selection



- **Whole hospital planning** (Zoning, departmental relationships, design of each department, etc.)

This will cover scale and style, integration with other facilities on the site, zoning and relationships between services, information technology, design of patient areas, privacy and confidentiality, role and use of external space, expansion strategy, and flexibility and shared use of space and interior design.

- **Detailed room data sheets planning** including Room Functions (purpose, activity and relationship), Environmental Factors (temperature ranges, air exchange, water supply, ironmongery, finishes, types of floor covering, etc.)



- **Quality of Environment**

The philosophy and ethos of the care environment is outlined covering issues such as the degree of privacy, confidentiality, social and faith issues, and dignity and access requirements.

- **Room Function**

The function and purpose of each room is described including room activity, occupancy and relationship with surrounding areas.

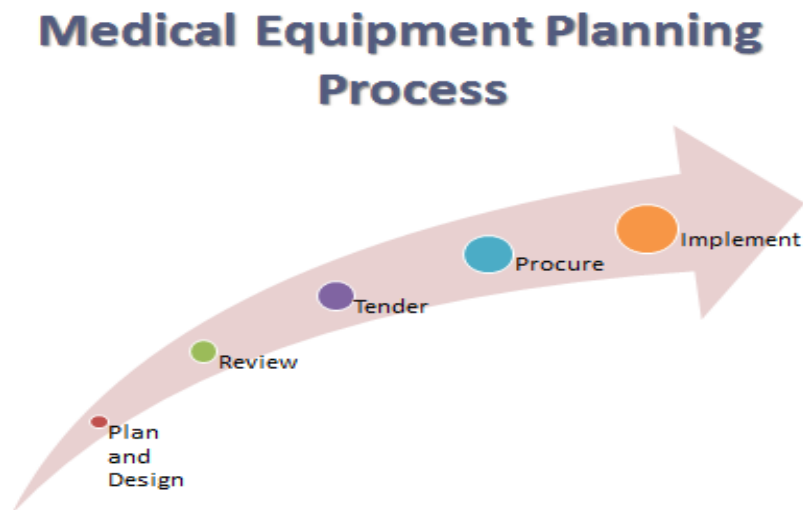
- **Detailed Schedules of Accommodation**

This element of the documentation describes the functional content and accommodation by type of service and its details including: Service and department name, Room type and quantity, Area in square meters, Circulation requirements within areas; and Total gross area per department, whole hospital requirements



# Medical Equipment & Furniture Planning, Consultancy and Project Management

- Equipment and FF&E Technology Planning
- Design and development of coordinated drawings
- Procurement Services -Tendering & Technology Evaluation
- Budgeting and cost management
- Site Supervision and construction management
- Supply Chain Management
- Medical Waste Management
- Commissioning, Training & Hand-over
- Development & Management of Biomedical Services & Maintenance



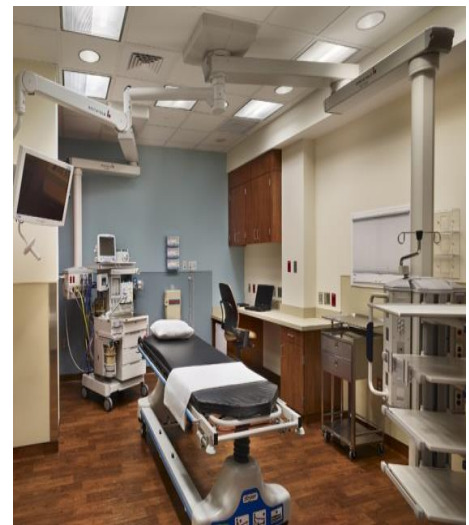
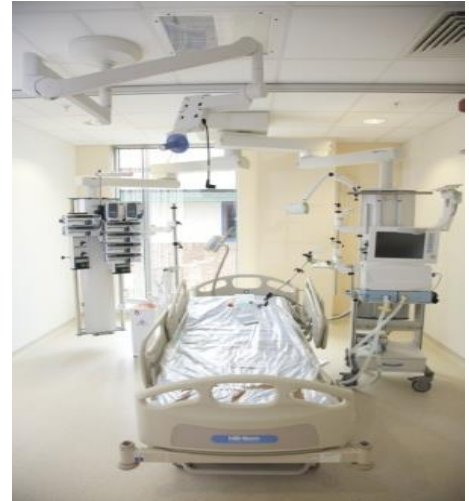
The hospital project is created within our planning program **Pequip** and developed by equipment and facility planners to produce realistic plans for departments, rooms and appropriate equipment.





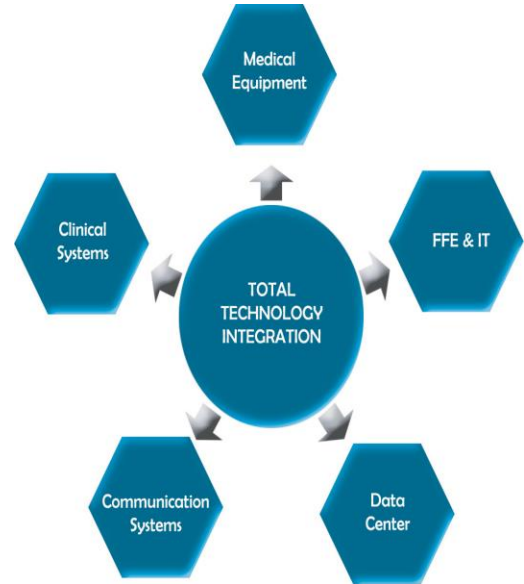
## Categories of Products included in the scope of work

- ✓ Medical Equipment
- ✓ Surgical Equipment
- ✓ Specialized Tele-radiology equipment
- ✓ Specialized Theater integrated solutions
- ✓ Hospital and Clinical Furniture
- ✓ Central Sterile Supply Equipment
- ✓ Laboratory Equipment
- ✓ Specialized Clinical Cabinetry
- ✓ Imaging Equipment
- ✓ X-Ray Accessories
- ✓ Oncology Equipment
- ✓ Dental Equipment
- ✓ Pharmacy and Automated Dispensing Equipment
- ✓ Physiotherapy and Rehabilitation Equipment
- ✓ Mortuary Equipment
- ✓ Bed Head Units, Service Columns, Customs walls and Booms
- ✓ Medical Gases outlets
- ✓ Picture Archiving and Communications System (PACS)
- ✓ Testing and Biomedical Maintenance Equipment
- ✓ Material Handling and Storage Shelving
- ✓ Kitchen and Cafeteria Equipment and Furniture
- ✓ Domestic Items (Refrigerators, Microwave Ovens, etc.)
- ✓ Non-Medical Furniture for all offices and public areas
- ✓ Pneumatic Tube System
- ✓ Signage Design & Planning
- ✓ IT & Communication Equipment (TV's, Telephones, Copies, IP Systems, Security)
- ✓ LAN / WAN Infrastructure including Passive Components (Active and Applications are optional)
- ✓ Picture Archiving and Communications System (PACS)
- ✓ General Non-patient related equipment & Furniture



## Room Component Data Sheets

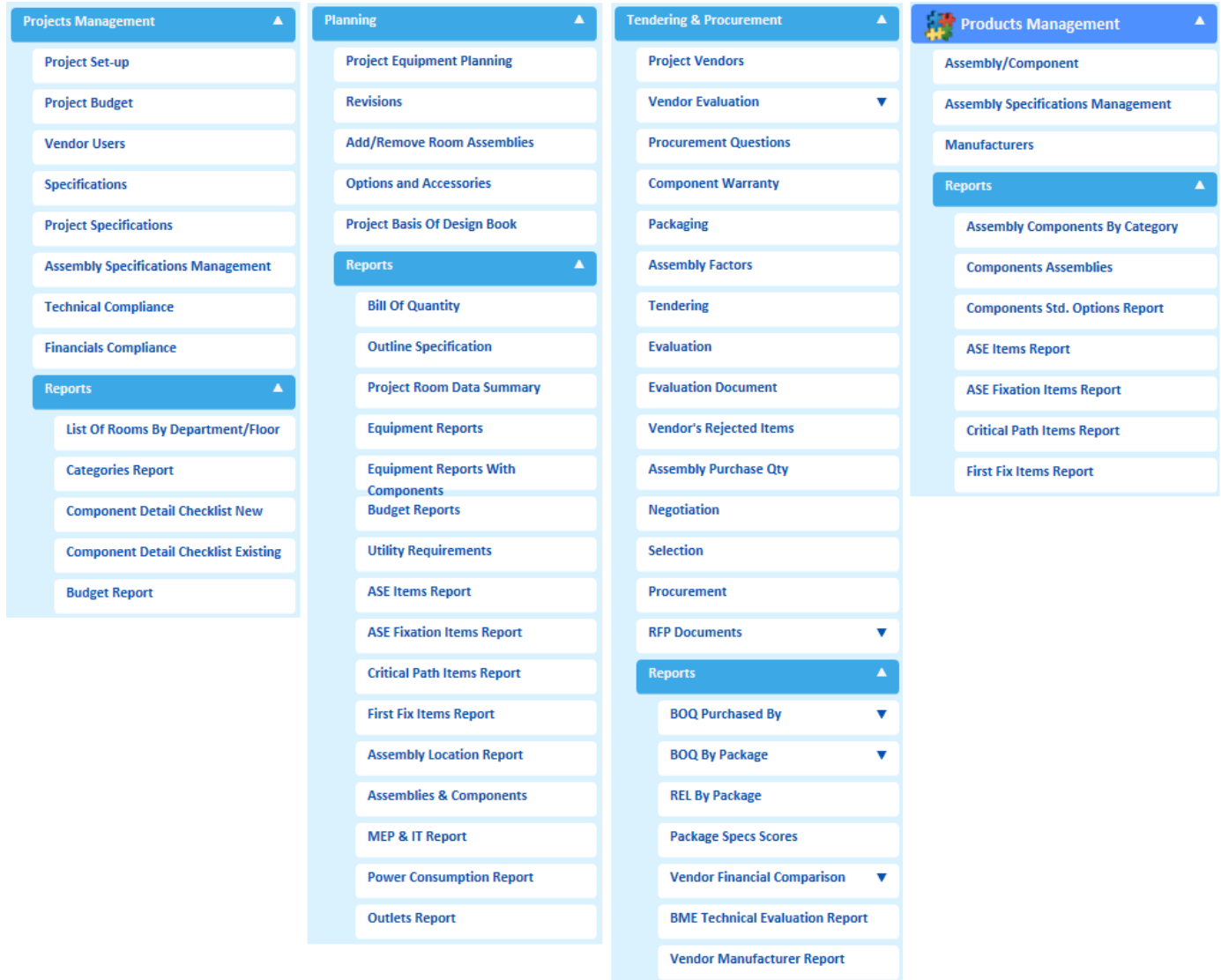
Using the client brief and the clinical output specification, room component data sheets are compiled for every room in the facility. For this we use **Requip** databases and other required databases according to client specification. All systems are supported by IHD's own unique database. This document details all items required for the room function, from sockets through to major fixed equipment. This in turn is used to produce other essential documentation such as bills of quantity and lists describing the location of equipment.



Assembly/ID	Description	Component Qty	In Assembly
12237	Dental Chair, Integrated w/ Delivery System, Prosthodontics, With Camera, Monitor, Dentist Chair and Assistant Chair	1	

**Comprehensive Reporting unmatched in the Industry to facilitate design and construction**





### *Coordinated Drawings*

Our Planners will enter the room tags in the proprietary owned Automated Planning System, **Pequip**, which will match the room tags in the AutoCAD drawings that will be received from the design Consultant. We will utilize only a single layer CAD frame for all of the architectural, MEP, structural and other disciplines for the purpose of developing coordinated drawings as well as 1:100 floor plans. This will expedite the time processing of the CAD design as well as enable accurate integration between the CAD drawings and the P Equip project module.


Our Planners will populate each room with the initial list equipment and quantities that will be expected to be used in each room using our Automated System. The list will be



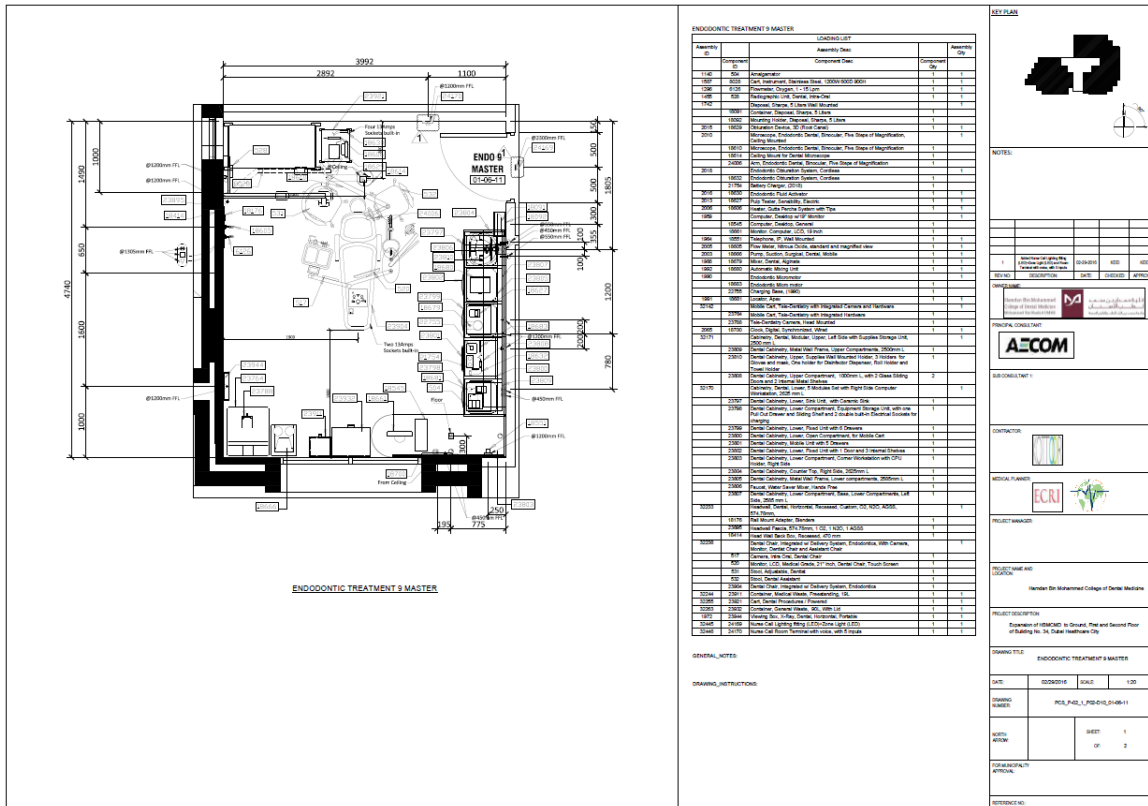
developed based clinical requirements, technology levels, operational requirements, connectivity of systems, and user preferences.

These plans will include location requirements on the drawings for each of the following services and for each item:

- Electrical Outlets
- Plumbing Fittings
- Special Room fittings
- Medical Gases Outlets
- Nurse Call Systems (Actual quantities per type per room according to HMT 0201)
- Data Points
- Special site preparations and requirements for the installation
- Structural requirements
- Electrical requirements for medical equipment, such as Power Consumption
- Mechanical requirements for medical equipment, such as Water Flow Rate

Our  Program will automatically send all of the block and attributes to the 1:20 scale CAD drawings to each room in the facility. Each block for each component will be shown of the drawing as part of each complete system or “Assembly”. In addition, all of the items that will be fixed to the walls and ceiling will have elevations from different directions that will be incorporated in the drawings.





### Specifications

Generic specifications are created for the equipment and furniture components to assist the client/owner in the procurement process. The specifications are developed to ensure a fair and open bidding process and to give the owner a choice of equipment without being restricted to particular manufacturers. Working with the client on the analysis process and workflow mapping stage, our consultants, will use the functional requirements gathered throughout the process to formulate and issue the technical specifications document which will then constitute an integral part of the tendering and procurement process after the client accepts it and sign sit off.



The screenshot shows the IHD software interface. On the left is a navigation menu with categories: Radiographic, Endodontics, Orthodontics, Pediatric, Periodontic, Prosthodontics, Circulation, College Administration, Staff Support, Ground, Projects Management, Project Set-up, Project Budget, Vendor Users, Specifications, Project Specifications, Assembly Specifications Management, Technical Compliance, Financials Compliance, Reports, List Of Rooms By Department/Floor, Categories Report, Component Detail Checklist New, Component Detail Checklist Existing, Budget Report, Planning, Design, and Additional Room Services. The main window displays the 'Assembly Specification' for '32237 - Dental Chair, Integrated w/ Delivery System, Prosthodontics, With Camera, Monitor, Dentist Chair and Assistant Chair'. It includes a purpose statement, a list of features and options, and a table of consumables and spare parts.

Description	Qty	Unit
1 Adult Digital Sensors (Specify Size)	50	EACH
2 Pediatric Digital Sensors (Specify Size)	50	EACH
3 Sensor Cover Sleeves	500	EACH

## Pre-Tendering

Prior to commencing the tendering stage, the Client must agree on the Tendering and Procurement Strategy. There are several tendering and procurement alternatives or strategies that are available to the Client: Lump Sum Price for entire project; Lump Sum Price for major packages; Lump Sum Price for individual packages; Itemized offers for each item where by a detailed submission must be submitted during the tender submission stage; Itemized offers for each item but bundled by major packages; Itemized offers for each item but in individual packages; and Itemized offers with flexibility to bundle procurement from designated suppliers. According to the strategy that is selected, we will create and develop procurement and sourcing plan for all medical and non-medical equipment, all furniture, and all other equipment which fall under our responsibility.

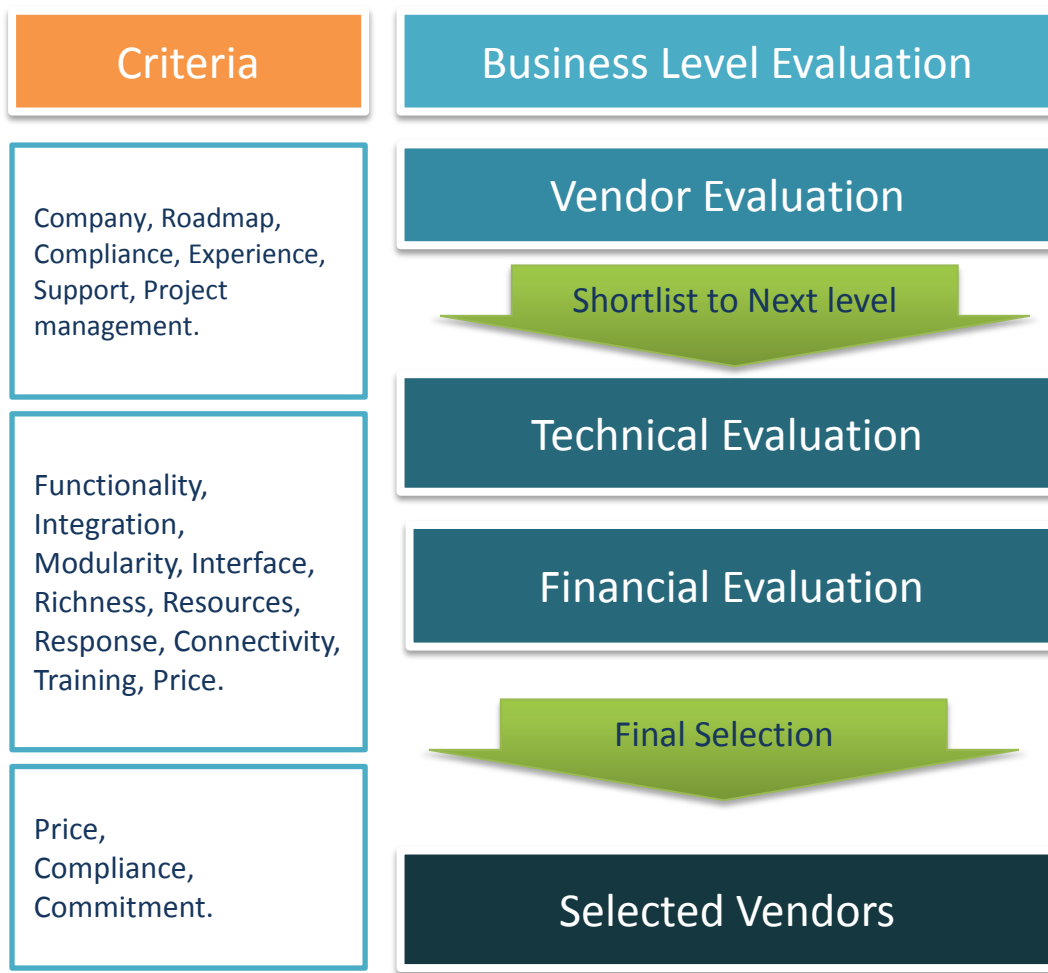
Developing a Procurement and Delivery Schedule is important in order to provide procurement function with appropriate time frames and guidelines related to all categories of equipment based on equipment delivery lead times and installation requirements. The integration of the Procurement Process with the Construction Schedule creates some unique challenges because different suppliers and contractors have to coordinate together through strict project management in order to avoid any delays to the hand-over of the building.



## Tender Evaluation

IHD uses an automated program that is web based that will allow each authorized user to complete the compliance sheets for each item based on predefined criteria and to attach to each form the electronic catalogue of the respective manufacturer as well as provide other supporting material. A list of the items that each supplier has been approved to quote on will be provided in the tender documents and a closed envelop with the user name and pass code will also be provided.

We will engage in a three – phased evaluation process. Our native approach is a 100% successful evaluation method that has proven results in helping our clients achieve best available options within specifications and budget constraints.



## **Vendor Evaluation**

The scripts and scenarios are created by IHD and approved by the client. IHD will also create the evaluation weighing factors and scoring sheets to be used during the evaluation process. IHD has a host of products and Technology comparison reports that will aid the Client in the technical and financial evaluation process.

Our Team and a selected evaluation committee from the client will then perform detailed evaluation of each supplier and rate each according to predefined evaluation criteria and will provide the Client with a range of procurement alternatives which are the most suitable and viable options for the project in the market, keeping in mind the strengths of each vendor. .

After the evaluation, IHD and the client will determine short listed vendors. Another round of evaluation will include reference site visits and key reference cold calling to investigate about other user's experience and level of satisfaction.





Assign Packages   Request for proposal (RFP)

Packages  
1-Dental and Medical Packag

Vendors

<input type="checkbox"/>	ABC
<input type="checkbox"/>	Al Futtaim Interiors
<input checked="" type="checkbox"/>	Al Hayat Pharmaceuticals
<input type="checkbox"/>	Al Mazroui Medical and Chemical Supplies
<input type="checkbox"/>	Al Sawari Pharm & Medical Equip. Store, L.L.C
<input type="checkbox"/>	Arabian Furniture
<input type="checkbox"/>	BAFCO
<input checked="" type="checkbox"/>	City Pharmacy
<input type="checkbox"/>	Cubes & Coves
<input type="checkbox"/>	Dentomed Medical Equipment LLC
<input checked="" type="checkbox"/>	Gulf and World Traders (GWT)
<input type="checkbox"/>	Human Space
<input checked="" type="checkbox"/>	Modern Pharmacy (MPC)
<input checked="" type="checkbox"/>	New Al Farwaniya Surgicals & Medical Equipment LLC
<input type="checkbox"/>	Remedex Hi
<input type="checkbox"/>	Remedex Low
<input type="checkbox"/>	SMS Medical Supplies
<input type="checkbox"/>	The Total Office

Save



## Technical Evaluation

There are four methods of technical evaluations that can be performed for any project.

- 1) Detailed evaluation as per RFP where technical evaluation is performed for each item during the tender evaluation stage and thus the Client can proceed immediately into contracting with the supplier(s) according to a specific and detailed scope of work.
- 2) Compressed evaluation which is similar to the above but technical evaluation is focused on the major items, ASE items, high cost items and system integration items.
- 3) High level technical evaluation, whereby the technical evaluation will be limited to making sure that the brochures presented match the intent of the specifications and the overall requirements. .
- 4) Brief Evaluation which will entail only a brief technical evaluation during the evaluation stage and simply a scoring of what each bidder(s) claims to be a non-compliance clause in the specs.



While making responses to the RFP using IHD web automated software (E-Tendering) , the vendor / supplier should go each line, item by item, and fill the response, which will be assigned with marks, along with the Manufacturers’ names, Model Numbers& Catalogues and a detailed technical offer which shows all of the component, option, accessories and parts. Once the response is completed, Our Planners will make the electronic verification by cross checking the details entered for each items against the catalogue. After the QC, the software will generate electronic reports for the qualified vendors for each product, including the marks and compliance to the generic specs.

Component ID	Description	Manufacturer	Model	Re-Order Number	Status
104	Cabinetry, Storage, Clinical, Stainless Steel, Under counter, 10 Doors 32290 Counter, Clean Up, Double Sinks, w/ Air Gun, Treated Water Faucet, Water Mixer, L Shape, with 10 Storage Compartments (Sterilization Equipment, Clean Up Counters)	Conf	a		Approved
18164	Upper Compartment, 1 Shelf, Laminated, 500mm L 1763 Cabinetry, Clinical, Modular, Upper, Laminated, 2300 mm L Cabinetry / Counters (Clinical Cabinetry)	Astra	Allius (custom)		Approved
18165	Upper Compartment, 2 Shelves, Laminated, 600mm L 1763 Cabinetry, Clinical, Modular, Upper, Laminated, 2300 mm L Cabinetry / Counters (Clinical Cabinetry)	Astra			Approved
20746	Work Bench, Steel, with Power and Overhead Cabinets 12133 Work Bench, Steel, with Power and Overhead Cabinets (Clinical Engineering Benches)	Edsal Manufacturing	MODEL MPNPEA60307	PEA60307	Approved
20749	Multimeter, Digital 12136 Multimeter, Digital (Clinical Engineering Test Equipment)	Fluke Biomedical Corp.	289		Approved
18366	Deionized Treatment Plant, Washers / Disinfectors Dental	Melag	MELAdem 53		Approved
23855	Dental Chair Hand Pieces Set for Belmont Celesta II, Instrumentation Tray (1 x 3-Way syringe, 1 x Pneumatic High Speed, x 1 Pneumatic Low Speed) 32193 Dental Chair Accessories and Hand Pieces Set for Existing Chairs (1 x Pneumatic High Speed Hand Piece) (Belmont Celesta II) (Dental Delivery Chairs, Integrated)	Satelec - subsidiary of Acteon Group	Ultimate Power		Approved
23856	Dental Chair, Delivery System, Pediatrics A-dec, Inc.	A-dec, Inc.	Afdec 300		Approved
23897	Dental Chair Hand Pieces Set for Belmont Celesta II, Assistant Instrumentation Tray (1 x 3-Way syringe, 1 x Low Section, 1 x High Section, 1 Light Cure) 32193 Dental Chair Accessories and Hand Pieces Set for Existing Chairs (1 x Pneumatic High Speed Hand Piece) (Belmont Celesta II) (Dental Delivery Chairs, Integrated) 32234 Dental Chair Accessories and Hand Pieces Set for Existing Chairs (2 x Pneumatic High Speed Hand Piece) (Belmont Celesta II) (Dental Delivery Chairs, Integrated)	Satelec - subsidiary of Acteon Group	A		Approved
18626	Occlusal Plane Determination System 1999 Occlusal Plane Determination System (Dental Treatment Planning System (PERIO & PROSTO))	Mestra	Arquimedes Pro Arcion Type Articulator	-10099	Rejected
23916	X-Ray Apron Storage, Wall Mounted 32247 X-Ray Apron Storage, Wall Mounted (Imaging Accessories (Racks, Apron and Gloves)	Wolf X-Ray Corporation	LEAD APRON HANGER	23916	Rejected
3598	Shield, X-Ray, Thyroid 1605 Shield, X-Ray, Thyroid (Imaging Accessories (Shield, X-Ray)	WOLF X-RAY CORPORATION	THYROID LEAD COLLAR	75060	Rejected
18562	Apron, Lead, Half 1974 Apron, Lead, Half (Imaging Accessories (Shield, X-Ray)	Wolf X-Ray Corporation	Half Lead Aprons (Apronette)		Rejected
23944	Viewing Box, X-Ray, Dental, Horizontal 1972 Viewing Box, X-Ray, Dental, Horizontal, Wall Mounted (Imaging Accessories (X-Ray Film Illuminators) 32272 Viewing Box, X-Ray, Dental, Horizontal, Portable (Imaging Accessories (X-Ray Film Illuminators)	Minston International -	VIEW BOX 1 PANEL MODEL: MST-4000 I		Rejected
517	Camera, Intra Oral, Dental Chair 1016 Dental Chair, Integrated w/ Delivery System, Capisoid, Instrument Tray, LCD Light, Ultrasonic Scalar Holder, Light Cure, Camera and Monitor (Dental Delivery Chairs, Integrated) 2038 Dental Chair, (High End) Integrated w/ Delivery System, Capisoid, Instrument Tray, Light, and Camera (Dental Delivery Chairs, Integrated, VIP) 32193 Dental Chair Accessories and Hand Pieces Set for Existing Chairs (1 x Pneumatic High Speed Hand Piece) (Belmont Celesta II) (Dental Delivery Chairs, Integrated) 32234 Dental Chair Accessories and Hand Pieces Set for Existing Chairs (2 x Pneumatic High Speed Hand Piece) (Belmont Celesta II) (Dental Delivery Chairs, Integrated) 32237 Dental Chair, Integrated w/ Delivery System, Prosthodontics, With Camera, Monitor, Dentist Chair and Assistant Chair (Dental Delivery Chairs, Integrated) 32238 Dental Chair, Integrated w/ Delivery System, Endodontics, With Camera, Monitor, Dentist Chair and Assistant Chair (Dental Delivery Chairs, Integrated) 32239 Dental Chair, Delivery System, Periodonic, w Camera, Monitor, Dentist and Assitant Chairs (Dental Delivery Chairs, Integrated)	Care Stream	CS1200		Approved

The P-Equip software will perform Technical Evaluation for each respondent based on Compliance, Comparison, Points, Weight, Strength of manufacturer, Country of Origin and other criteria’s. These Evaluations will be tabulated in a matrix for comparative purposes.

If “E-Tendering” will not be used, then the Medical Equipment Planners will manually check the compliance sheets and manually assign scores for each line item according to pre-set criteria. Any missing information from the bidders’ submittal may be requested to be submitted through an RFI process provided that it will not alter the material submission of the bid.



Component Description	517 - Camera, Intra Oral, Dental Chair	This component is included in the following Assemblies			
Catalog/Model No.	CS1200	1016 - Dental Chair, Integrated w/ Delivery System, Capsidor, Instrument Tray, LCD Light, Ultrasonic Scalar Holder, Light Cure, Camera and Monitor.			
Country of Origin/Manufacturing	Finland	2038 - Dental Chair, (High End) Integrated w/ Delivery System, Capsidor, Instrument Tray, Light, and Camera.			
Re-Order No.		32193 - Dental Chair Accessories and Hand Pieces Set for Existing Chairs ( 1 x Pneumatic High Speed Hand Piece ) (Belmont Celesta II)			
Warranty Offered		32234 - Dental Chair Accessories and Hand Pieces Set for Existing Chairs ( 2 x Pneumatic High Speed Hand Piece ) (Belmont Celesta II)			
Manufacturer Name:	Care Stream	32237 - Dental Chair, Integrated w/ Delivery System, Prosthodontics, With Camera, Monitor, Dentist Chair and Assistant Chair			
		32238 - Dental Chair, Integrated w/ Delivery System, Endodontics, With Camera, Monitor, Dentist Chair and Assistant Chair			
		32239 - Dental Chair, Delivery System, Periodontic, w Camera, Monitor, Dentist and Assistant Chairs			
		Evaluating this component will reflect in all the above assemblies			
Specification	Vendor Comments Ref.	Catalog Approved?	BioMed Eng. Comments	Compliance %	
<b>1 - Performance Specifications &amp; Features</b>					
1.1 - The intraoral digital dental radiographic unit shall include the following:					
1.1.1 - Long sensor cable with interface module to the Dental Delivery units computer	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.2 - High-frequency technology	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.3 - Automatic electronic shutter.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.4 - Up to 40X magnification.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.5 - Light source integrated into the hand piece.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.6 - Adjustable focus and Light intensity control.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.7 - Mounted with long reach cable from sensor to computer station. Shall be connected to LCD display screen on the dental chair and to computer system.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
1.8 - Real-time image acquisition.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	
<b>2 - Mounting Method</b>					
2.1 - Handheld	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Partial		<input checked="" type="radio"/> Yes <input type="radio"/> No	100	

## Financial Evaluation

There are four methods of financial evaluations that can be performed for any project.

- 1) Detailed evaluation as per RFP where financial evaluation is performed for each item based on unit prices quoted, on extended prices, on extended warranty coverage, on detailed financial offers which will include the cost of all options and accessories and based on the total ownership cost which will include the cost of operations and spare parts
- 2) Comparison of unit prices and extended prices for each item without regards to the cost of options, accessories and spare parts.
- 3) A Lump Sum price for the entire project or package based on compliance with the technical evaluation.

The P-Equip Program will generate all of the financial analysis including comparison between other offers, budget and indicative prices from the regional markets. These results will enable IHD to perform accurate and detailed financial evaluation.



Our biomedical specialists and planners using our tools will evaluate tender financial responses and will focus on:

- Features
- Cost versus Budget
- Comparison of options and accessories per item
- Life cycle cost and warranty
- Consumables and running costs
- Packaging of items (for better pricing options)

### **Recommendation for Selection of Products and Vendors**

IHD will provide the Client with a recommended as to who should be selected based on a balance of technical weight factor and a financial weight factor. A short list for price negotiations can also be provided to the Client for his ultimate decision.

In the event, products are being awarded individually or in packages, the selection process will be done in a phased approach in order to ensure that the procurement functions are performed in a coordinated, timely and cost efficient manner and also in accordance with the Client's requirements and construction schedule.

Our combined selection approach takes into consideration:

- The Technical scores which carry a percentage of the overall evaluation
- The Financial score which carry a percentage of the overall evaluation
- The Company strength, project management capability and experience in the production of shop drawings and site implementation which also carries a percentage of the overall evaluation.

### **Procurement**

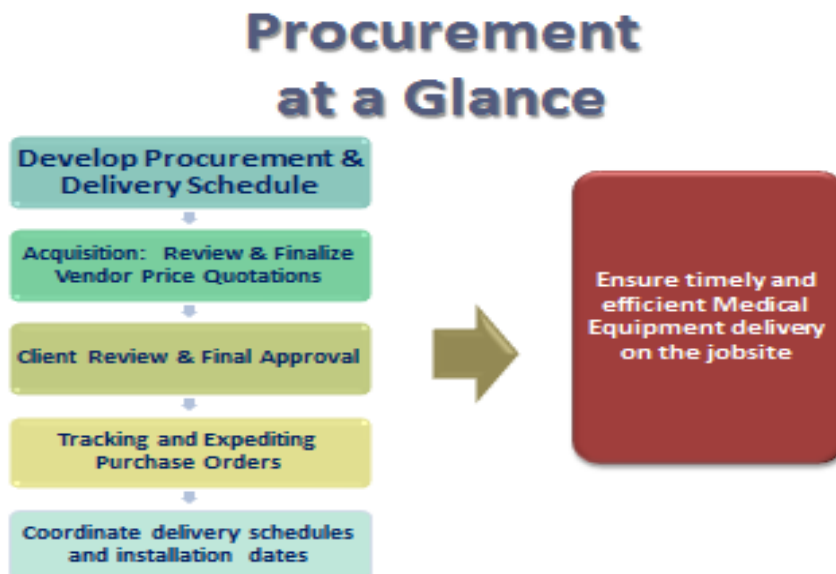
IHD will help by working with the client's procurement and legal departments to finalize contract negotiations, project delivery milestones, warranties, support agreements, and



terms & conditions. We will produce the Scope Statement Document that will help the client in defining the scope of contract.

We support the equipment procurement process in order to protect the client's material and financial interests. This service includes checking documentation prior to purchase by the equipment contractor in order to ensure material quality is as previously agreed and to confirm completeness of supply of equipment, accessories and consumables.

Our experience working with vendors and organizations in the contract negotiation process allows our clients to capitalize on lessons learned, accelerate the contracting process, reduce risks and develop strategies for successful projects. Our approach promotes achieving better contract terms and building improved, long-lasting relationships.



### **Construction Administration (Site Supervision)**

We provide comprehensive Construction Administration / Management Services geared towards ensuring that the site is properly prepared for the installation of all equipment and that the equipment is installed and commissioned for timely hand-over to the owner.

Through-out this phase, our team will:



- Formalize Project Management Office (PMO) from IHD and the client
- Recommend and support in preparing implementations team site office requirements
- Perform Order verification
- Track and communicate procurement budget
- Approve Payments by milestone according to Purchase Agreements terms
- Coordinate facility and procedures orientation
- Initiate equipment user training program
- Provide continuous problem solving!
- Continuously Identify and manage all change issues
- Continuously Monitor and manage risks
- Continuously monitor project budget
- Continuously monitor project progress according to pre-set KPIs of implementation performance evaluation. Monitoring includes milestone achievements, time schedules, delivery, and staff performance from vendors, Contractors , and the client

### Site Supervision at a Glance



### Products Receipts



With thousands of items being purchased, a clear plan for management of all functions related to all equipment, cabinetry, furniture and all other items, logistics will be developed including receiving, delivery, and storage functions. IHD's responsibilities will include overseeing and managing delivery and receipt of equipment with the construction manager

IHD will coordinate the delivery & receipt of OF/CI equipment with construction. Oversee and manage the receipt of OF/OI equipment. Resolve receiving discrepancies & return of damaged goods. We will track & expedite Purchase Orders with Vendors for delivery. Track & expedite pre-delivery installation requirements (e.g. brackets, fixing plates)

We will Manage procurement schedule & communicate open issues to Client. Coordinate delivery & installation dates with Vendors / Suppliers. IHD can, if requested, establish warehouse requirement and finalize receipt and storage process (access, security, etc.).

### **Shop Drawings**

At the same time, the Site Team will be reviewing the shop drawings with the project team to assure necessary approvals related to construction requirements for the site preparation. This can be a tedious process as many suppliers in the MENA region are not familiar with the proper development of shop drawings for each item or coordinated shop drawings per room. The shop drawings must be consistent with the coordinated design drawings with the exception that the actual blocks, fittings, connections and other components as specified by the selected manufacturer will replace the design blocks.

We will be responsible for receiving the REVIT models from the suppliers for each approved item in order to incorporate with Contractor's drawings using the BIM system. The BIM system will provide coordination and fit tests, clash detection, construction sequencing studies, visualization and aesthetic value assessments, coordination of temporary and permanent works, production of shop drawings and production of As Built Drawings. Room shop drawings will be provided to the fabricators of the modular walls system in order for them to carry out the fit-out and containments.

Final approved shop drawings will be turned over to the contractor so that they can incorporate them in their "As Built" drawings.





### **First Fix Items and Site Preparation**

The Site Supervision Team site will supervise the fixation of the first fix items (wall support, ceiling / wall plates, backing, concrete pour, floor boxes, mounts, etc.) including approving the manufacturing (calculations) of steel support. Supervision will be done via inspections and getting reports from the site.

Our Site Supervision Team will attend some on-site construction coordination meetings and address all equipment related issues. This includes continuous coordination with the Mechanical / Electrical and Plumbing teams. The responsibility of attending all the meetings will be on the actual site staff.



Our Team will identify all equipment that affect concrete pour and coordinate and conduct on-site walk-thru on a regular basis to ensure rough-in requirements have been satisfactory completed. This will be done by the site engineers or by site inspectors to ensure correct pre-installation works. This will include management and tracking of the punch-list development for each room on the facility.

We will also respond to Contractors Requests for Information (RFI) bulletins.

### **Installation, testing & Commissioning, Training**

Our Site Supervision Team will oversee the activities related to assembly, on-site installations and final placement of all fixed and movable equipment according to the end-user requirements. This will be done by receiving reports from the sites and periodic site





visitations.

Following installation of the equipment, we will oversee the performance by others the testing/verification of the medical gases systems and will conduct Electrical Safety Tests on the newly installed equipment. Further, we will coordinate equipment testing, inspection, and commissioning functions according to end-user standards. We will oversee the functions of organizing trainings on the use of the equipment between the hospital key staff and the suppliers / manufacturers' representatives.

### **Medical Equipment Integration**

IHD will additionally oversee the Medical Equipment Integration with regards to connecting Medical Devices with the Hospital Information System. We will effectively assist and coordinate the installation process with the Health IT Consultant/Project Manager in order to assure proper and on-time systems implementation.

IHD is unique in having specialized medical equipment and IT staff full time on board that not only understand how equipment will be integrated together and to IT systems, but also the IT applications the equipment will integrate to.



### **Project hand-over**

After completing and finalizing the Medical Equipment installation and implementation and after assuring proper functioning of the medical devices within the Facility, our Team will provide the Client with Project Close-out Report and submission documentation. Our role in this phase includes:

1. Alert the Client on pending issues
2. Make sure that the training programs was initiated and coordinate among all users



3. Make sure the warranty and maintenance documentation was provided and hand-over to the Clinical Engineering Department
4. Make sure that O&M Manuals have been provided
5. Make sure that service training was conducted or schedules
6. Make sure that spare parts lists and consumables for each piece of equipment have been provided
7. Provide Project closeout documentation to the Client

## Set-up and Operate the Biomedical Engineering



This aspect of the project will be led by IHD in collaboration with a specialized Biomedical Service/Maintenance company as a transitional service to hand over to the Facilities Management Company that will eventually undertake the Biomedical Service functions for the

Hospital. The set-up of a biomedical engineering department will result in considerable cost-savings as well as improvements in the services rendered to the clinicians in the hospital.

Achieving the most cost-effective and technically competent and responsive biomedical engineering support usually requires realigning the mix of services between internal departments and outside companies. IHD will assist the Facility Management Company in setting up a complete biomedical engineering department and help them regulate all required policies and procedures. IHD will also develop service and maintenance programs which cover all necessary inspection, testing and maintenance activities for all medical equipment in the Facility. Further, IHD will create a transition plan and hand over to the

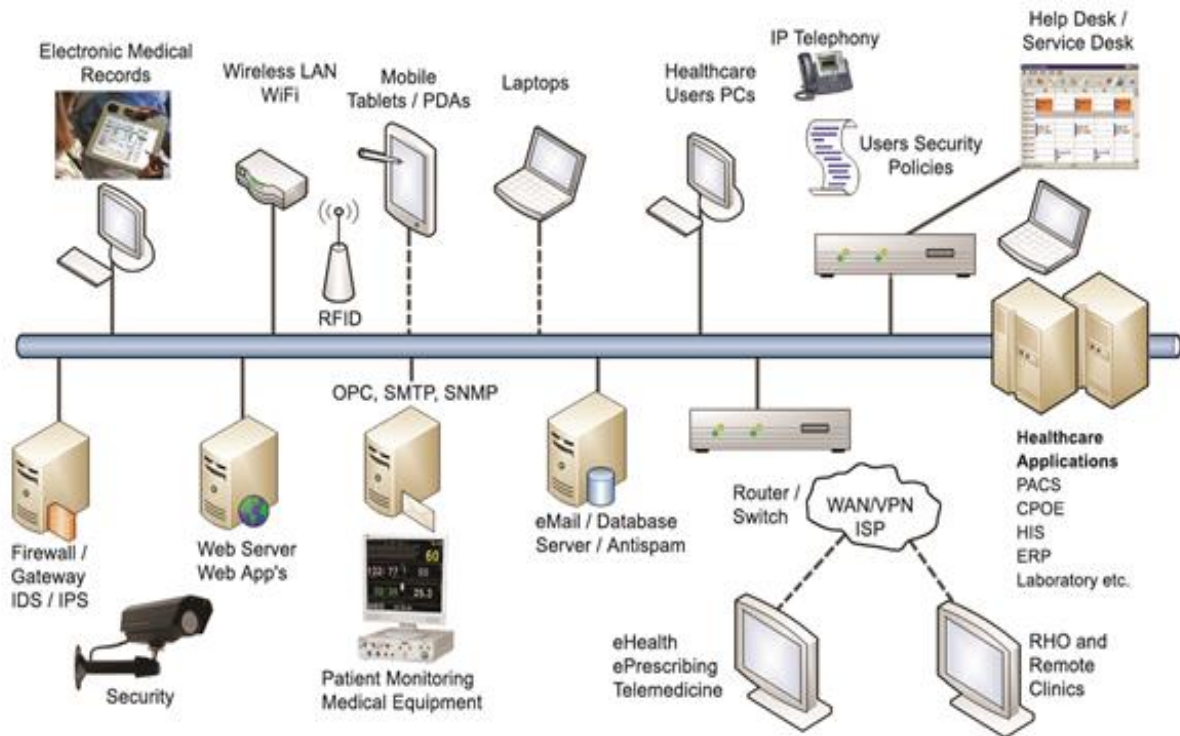


Bio-Medical Department. The Consultant will collaborate effectively with the newly established department and provide it with all the necessary information and set of tools to work independently. Transition planning is a project management process and by definition must be time managed, be task-driven and objective-driven.

## **Health Informatics Consultancy and Project Management**

- Business Strategy and Informatics Planning
- Project Management
- IT Infrastructure Assessment, Design, and capacity planning, Consultancy Services and total design of all IT infrastructure components and capacity planning
- HIMs & Clinical Systems Requirements Mapping
- HIT systems technical specifications documentation, including Clinical Information Systems (PACS-CIS-LIS) Requirements and integration,
- Recommendation of Clinical /Business Applications & Best Practice Workflows & Pathways
- Procurement Services -Tendering & Technology Evaluation
- Applications Deployment & Go-Live
- Disease Management
- Health Data Management & Modeling
- Health Informatics Outsourcing
- IT Organization Building, Recruitment, Training, and IT Governance Implementation

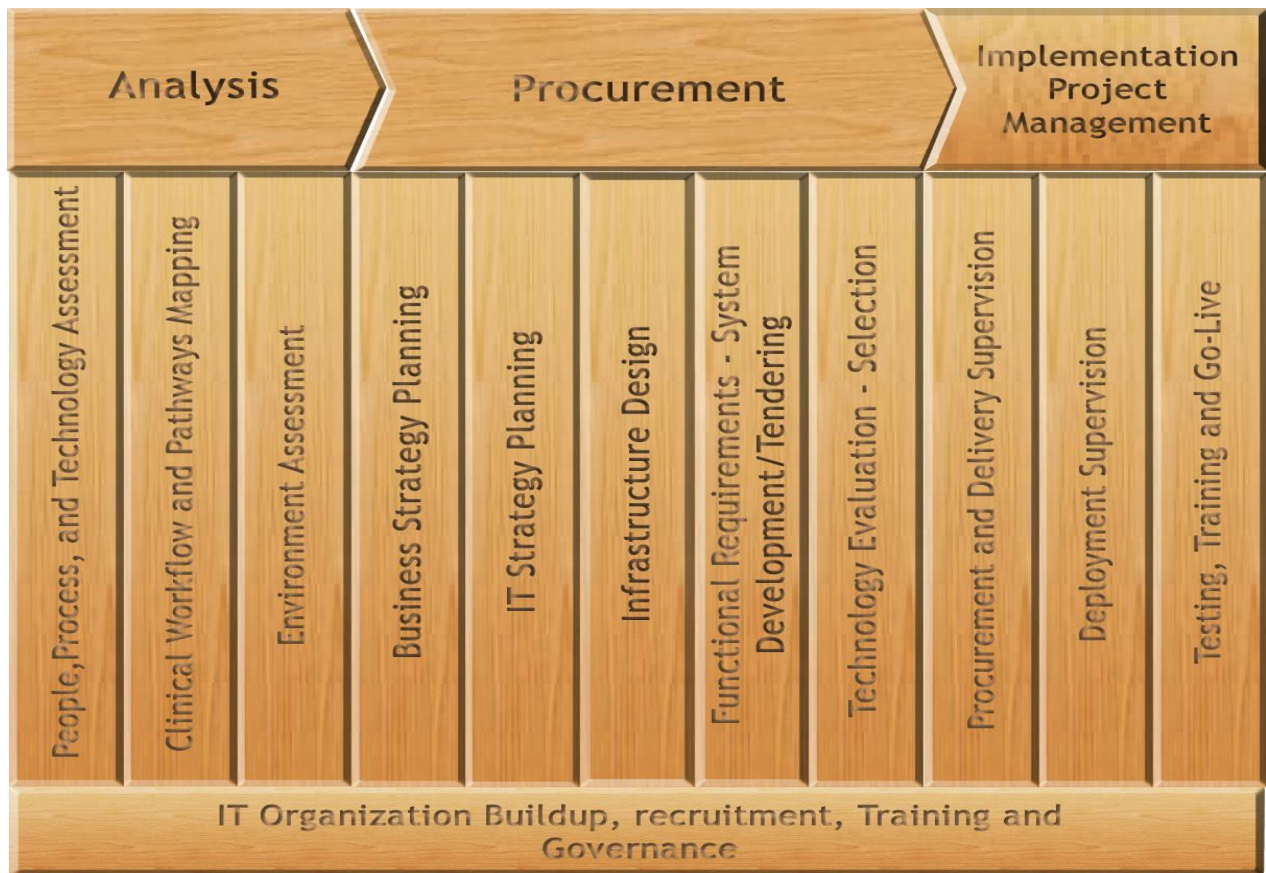




With the increasing demand of the current Complex healthcare environment for availability and security, IHD is committed to partner with you to ensure that you are implementing the best solutions possible for your organization. Each solution we develop and deliver will be tailored with your goals, service level, technical requirements, and budget constraints in mind. We strive to earn the recognition of World Class organizations.

Our vast expertise in the design and integration of technology and infrastructure solutions, combined with our deep expertise in Healthcare Facilities and Medical Informatics, helps healthcare organizations improve the efficiency and quality of their operations. With technology and application expertise in house, we can provide you the most complete and comprehensive solution in the market ensuring quality and minimizing risk.



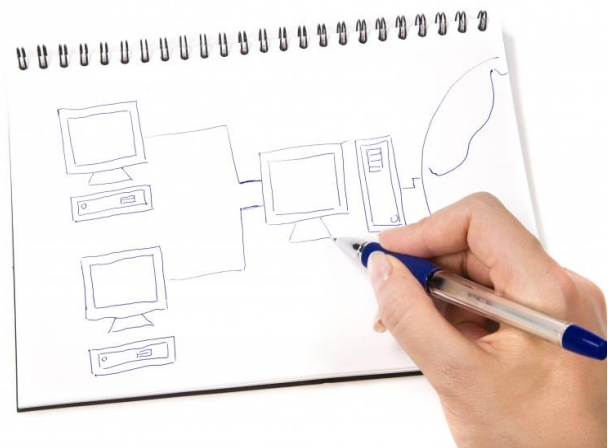


IHD consultants provide objective recommendations throughout all consultancy phases. There are various configuration options with healthcare technology systems. It requires an objective perspective to lead and facilitate conversations regarding very subtle pros and cons that help our client evaluate the best approach dependent on their particular needs.

Whether the design process or procurement specifications are chosen as the desired route, a comprehensive technical and functional design is required for inclusion in either document.

The technical design is developed from information gathered and will include, but not be limited to:

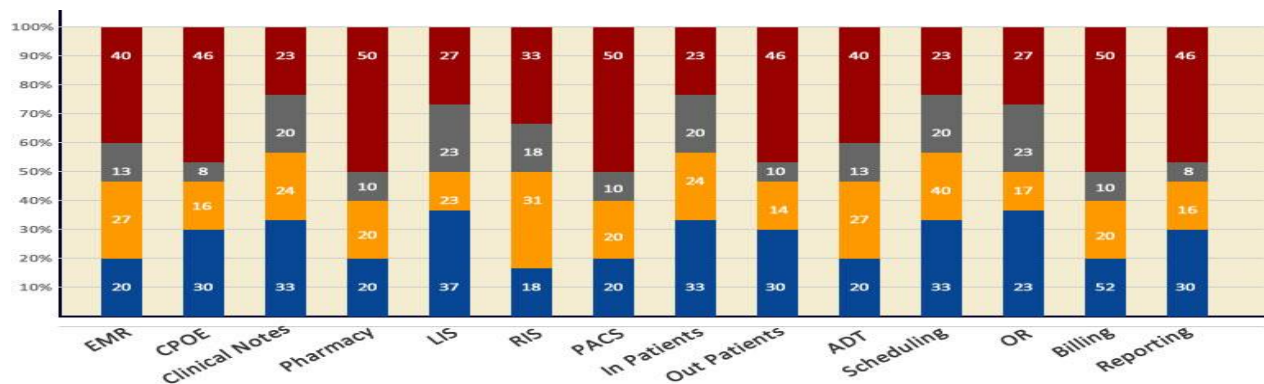
- System and services configuration
- Expansion requirements
- Interfaces requirements
- Systems' integration
- Features and Functionality
- Network & Communication Design
- Systems Management
- Operational Support



- Security Design
- Integration Requirements
- Mobility

### Healthcare Applications Expertise

IHD specialized IT experts, along with its international partners, have an in-depth knowledge of the various applications that are available worldwide. We customize the requirements for applications according to the captured unique requirements of each client and according to the composition of each project. In addition, IHD can assist the client in procuring the best-of-breed modules of applications from various vendors deemed suitable for a particular project and in properly integrating them in a way to best meet the client's objectives. Because we have worked with several solutions, we understand the strengths and weakness of each and we also ensure that the specifications are clear and do not allow for "hidden" costs or surprises or future customizations. By properly designing the requirements of each application, IHD ensures the successful implementation of HCIT solutions in a timely manner and according to budget.



## Bridging the GAP

Why have project management methodologies in healthcare?

And

How we deliver successful projects

- To bring best of breed systems to our region, a gap in culture and lack of user expectations management always exists between multinational solution providers and our customers. This is why projects fail or go beyond anticipated time and budgets.
- We bridge that gap by being part of the culture and on top of the technology. We minimize the risk by better understanding our clients' requirements and



achieving the desired outcomes effectively by having a methodology in managing healthcare projects.



## Health Program and Project Management

- Project Management including cost, schedules, manpower allocation, etc.
- Management of Consultants (Design, Contractors, Operators) tender process, negotiation & appointment
- Design Management
- Quality Management
- Cost Management
- Tender Management
- Facility Commissioning



# Complete Cycle Project Management

Our team of consultants has the depth of knowledge, from inception through completion that ensures we deliver projects within the available budget and time constraints. In order for a project to be successful; it is

essential that the whole project team work together in sharing the responsibility to control costs. In order to do this, firstly, we create an environment within which a successful outcome can be defined and then achieved.

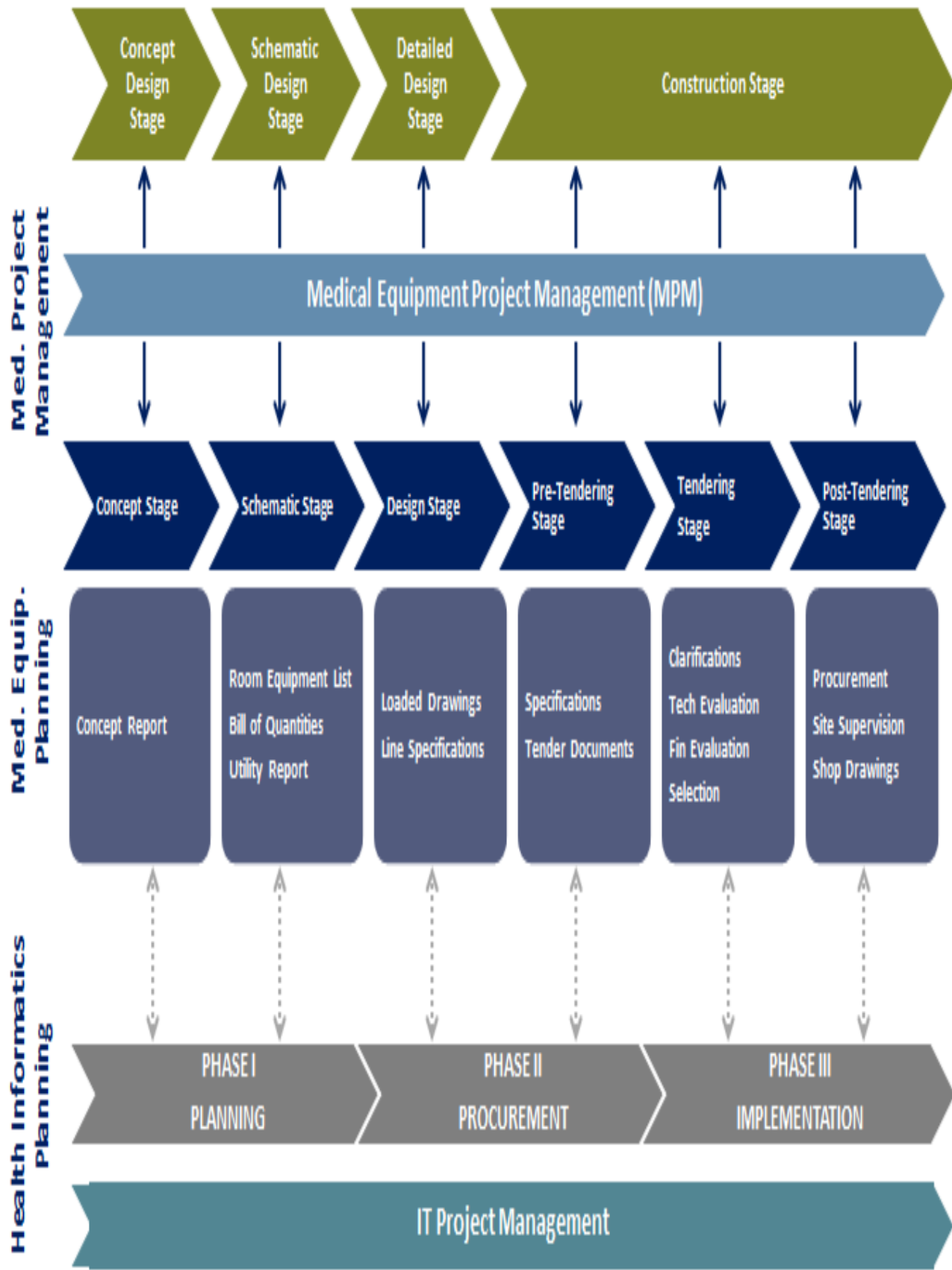


We have assembled a team with the experience, skills, and instincts necessary to meet realistic objectives suited for each project. We will also establish effective management disciplines, with clear lines of authority, responsibility and communication between all of those involved. We tailor value for money to each client and assert how this value can be measured throughout the program life. This ensures all engaged members are aligned in serving the same overall objective.

After completing and finalizing the implementation and the system goes live, We will provide the Client with Project Close-out and submission documentation.







# Healthcare Consulting

- Developments of Business Strategies
- Developments of Business Plans
- Market Research
- Feasibility Studies
- Competitive Intelligence gathering
- Organization Analysis and Design
- Assessment of Client objectives & project deliverables
- Operational Assessments including clinical practices, management, IT and equipment
- Process Audit
- Client & stakeholder Consultation
- Planning, Development of Clinical Programs
- Clinical pathways workflow documentation
- Best practice recommendation of suitable clinical and business processes
- Risk Management and change management
- Financial Planning
- Management Performance Process outcome



# Reference Projects

With nearly 100 combined years of experience by our staff, IHD shapes and enhance the healing experience for both patients and staff. , IHD offers a diverse and award-winning portfolio consisting expertise in various healthcare areas, including:

- Replacement Hospitals
- Cancer Centers
- Wellness Centers
- Ambulatory Care Facilities
- Research Facilities
- Primary Care Facilities
- Transplant Centers
- Assisted Living Facilities
- Rehabilitation hospitals

The IHD team brings together the best in quality project management, medical planning, architectural design, engineering, technology, aesthetics and LEED™ (Leadership in Energy and Environmental Design) in a way that is custom suited to assure an outcome that exceeds expectations.

## *On-Going Project in the Middle East*



Project Description: Expansion of facility in Dubai which has 65 Dental Treatment Rooms, Large Dental Lab, CSSD and the Dental College.

Scope of Work: Complete Medical, Dental, General Furniture and IT planning

Complete assessment of conditions of existing equipment

Complete Project Management and Site Supervisor

Tendering and Tender Evaluations using P Equip E Tendering Module

## ECRI

In Conjunction with



## Samples of Completed Projects by our Staff

### On-Going Project in the Middle East SIDRA Medical & Research Centre, Doha, Qatar

Sidra Medical and Research Centre will be an ultra modern, all-digital academic medical centre which is being designed and planned to the best international standards in sciences. It will offer specialty care for women and children. The project is projected to cost more than 2.5 Billion US Dollars

#### IHD's Scope of Work:

IHD is supporting CCC as the Client representative, ASTAD, in providing Construction Administration Services including materials approvals, shop drawings approvals, site preparation, materials receipt, installation supervision, testing and commissioning as well as training on the medical technologies. IHD is also providing resources for the integration of the medical equipment with the IT systems and for health informatics requirements



### New Al Mafraq Hospital Abu Dhabi, UAE

A 246000 square meter Complex comprising of 730 beds and a large ambulatory care center. The complex includes a large surgical center, a large outpatient department, trauma and emergency center, a burns unit, and comprehensive tertiary services center.

#### Scope Encompassing:

Medical Planning  
Medical Equipment Planning



## Arzanah Medical Complex Abu Dhabi, UAE

A 54,000 square meter Complex comprising of 78 beds, a large orthopedics and sports medicine practice, a minimum invasive spinal surgery and pain management center, a large wellness outpatient practice, a large rehabilitation center, and a referral imaging center.

*Scope Encompassing:*

Program Planning

Medical Equipment Planning

Healthcare IT Planning

IT Infrastructure

Project Management Office (PMO)



## Danat Al Emarat Abu Dhabi, UAE

With a comprehensive range of services exclusively for women and children, competent medical professionals, unrivaled world-class facilities and 5 star luxury, we are setting a new standard in patient care.

*Scope Encompassing:*

Medical Equipment Planning

Procurement Services



## SKMC, Casablanca, Morocco

144-bed Specialized Tertiary Center that comprise: Dialysis, Oncology, Cardiology, Operating Theatres, Radiation Therapy and Nuclear Medicine, Imaging Department, Laboratory, Dental, Neonatology, Outpatient Clinics.

*Scope Encompassing:*

Medical Planning

Medical Equipment Planning



## Imperial College Diabetes Center Al Ain, UAE

A state-of-the-art facility specializing in Diabetes Treatment, Research, Training and Public health. The centre provides the highest level of specialized patient care, from first diagnosis to the management of all complications associated with diabetes.

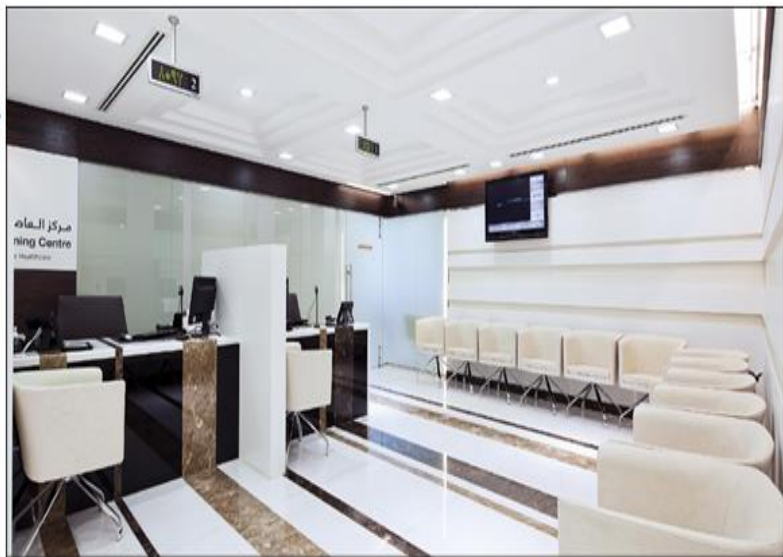
*Scope Encompassing:*  
Program Planning  
Medical Equipment Planning



## Capital Health Screening Center Abu Dhabi, UAE

Capital Health screening center is a state-of-the-art medical center dedicated to performing medical checkups that expatriates need to undergo when applying for, or renewing Abu Dhabi residency Visas.

*Scope Encompassing:*  
Full turn key project  
Program Management,  
Medical Equipment Planning  
Healthcare IT Planning  
IT Infrastructure  
Project Management Office (PMO)



**Sultan Bin Abdulaziz Humanitarian City  
Riyadh, Saudi Arabia**

**400-bed Rehabilitation Hospital and Medical Center  
which opened 30th October 2002 to provide care to  
both inpatients and outpatients**

*Scope Encompassing:*  
*Full turn key project*  
**Medical Equipment Planning**  
**Healthcare IT Planning**  
**IT Infrastructure**



**Aspetar – Qatar Orthopedic and Sport  
Medicine  
Doha – Qatar**

**50-bed Sport Medicine and Orthopedic Hospital and**

*Scope Encompassing:*  
**Medical Equipment Planning**  
**Healthcare IT Planning**  
**IT Infrastructure**



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