

ABU DHABI CLINICAL COSTING STANDARD

Document Title:	Abu Dhabi Clinical Costing Standard
Document Ref. Number:	DOH/ST/HPS/CC/V1/2024
New / Revised:	New
Publication Date:	November, 2024
Effective Date:	January 2025
Document Control:	DoH Strategy Sector
Applies To:	<p>For example:</p> <ul style="list-style-type: none"> - DoH licensed Healthcare Providers - DoH licensed Healthcare Providers of dental services. - DoH authorized Health Payers. - All Health Insurance products and schemes, as applicable.
Owner:	Healthcare Payers Sector
Revision Date:	November, 2025
Revision Period:	One year
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Version:

V1

1. Standard Scope

- 1.1. This standard applies to all the healthcare providers listed below, operating in the Emirate of Abu Dhabi under the license provided by the Department of Health:
 - 1.1.1. Hospitals
 - 1.1.2. Specialist day case and day surgery centers
 - 1.1.3. Long term care and rehabilitation
 - 1.1.4. Stand-alone specialist services (e.g., Dialysis, IVF, Dental etc.)
 - 1.1.5. Primary care centers
 - 1.1.6. Clinics and Others

2. Definitions and Abbreviations

No.	Term / Abbreviation	Definition
2.1	Clinical Costing	The process of measuring the cost and mix of resources used to deliver patient care. Costing plays a vital role in the development of activity-based funding policies, can inform the development of patient classification systems, and provides valuable information for pricing purposes.
2.2	Account Code	An account code is a unique line level record for each type of asset, liability, equity, revenue, and expense.
2.3	Clinical Service	Services related to the observation or treatment of a patient within a healthcare setting
2.4	Direct Cost	Expenses incurred directly in the delivery of a patient care product and/or service allocated to a patient using evidence of resource utilization e.g. Operating Room, Physician, Nursing costs etc.
2.5	Patient Products	Health services provided to the patients for assessing, recording, maintaining, or improving health, or diagnosing/treating conditions.
2.6	Overhead Cost	Overhead cost refers to expenses within the hospital that generally relate to administrative and support functions. They do not relate to patient care and include finance, human resources, general maintenance, and information technology etc.
2.7	General ledger	The general ledger is a set of financial accounts that summarizes all financial transactions occurring within an organization and is used to create its financial statement.
2.8	Cost Center	The cost center is group of financial transactions that reflect management responsibilities, point of cost control and accounts that reflect categories of expense.
2.9	Final Direct Cost Center	Final direct cost centers in healthcare facilities are expenses that result from patient care interventions and are connected to the provision of services to patients. Final direct cost centers may also be associated with non-patient activities including teaching, training, and research.
2.10	Final Overhead Cost Centers	Final Overhead cost centers are cost centers that provide

		<p>support to Direct cost centers in the health care facility.</p> <p>For example, the Information Technology Department does not provide patient care, but it supports Final Direct Cost Centers by providing the equipment and technology needed to support patient care. The payroll department does not provide patient care but compensates staff who provide patient care.</p>
2.11	Cost Buckets	<p>From a reporting perspective, it would be impractical to report cost data by every final direct cost center as there may be over 100 such cost centers for any health service. For reporting cost data, it is therefore useful to aggregate final direct cost centers to a higher level, called 'cost buckets' (also referred to as 'cost pools'). For example, a health service may have many final direct ward related cost centers (e.g., medical / surgical / pediatric / obstetric), but for the purpose of reporting, these final direct cost centers may be aggregated to a 'ward' cost bucket.</p>
2.12	Funded Mandates	<p>Special funds received from governmental entity e.g. non-activity-based mandates.</p>
2.13	Cost Types	<p>Cost Types are aggregations of expense accounts for cost reporting purposes.</p>
2.14	ADCCDC	<p>Abu Dhabi Clinical Cost Data Collection: The ADCCDC is a critical component of Abu Dhabi's value-based funding framework.</p>
2.15	ADCCS	<p>Abu Dhabi Clinical Costing Standards</p>
2.16	EEG	<p>Electroencephalogram</p>
2.17	ECG	<p>Electrocardiogram</p>
2.18	CT	<p>Computed Tomography</p>
2.19	MRI	<p>Magnetic Resonance Imaging</p>
2.20	PET	<p>Positron Emission Tomography</p>
2.21	ICU	<p>Intensive Care Unit</p>
2.22	HPCS	<p>Healthcare Common Procedure Coding System</p>
2.23	MS	<p>Medical Supplies</p>
2.24	GS	<p>Goods and Services</p>
2.25	ED	<p>Emergency Department</p>

2.26	OP	Outpatient Clinics
2.27	OR	Operating Room
2.28	SPS	Special Procedure Suites
2.29	PACU	Post Anaesthesia Care Unit
2.30	NICU	Neonatal Intensive Care Unit
2.31	PICU	Paediatric Intensive Care Unit
2.32	IVF	In Vitro Fertilization
2.33	DPSC	Disease Prevention and Screening Center
2.34	OPAT	Outpatient Parenteral Antibiotic Therapy
2.35	TLD	Training, Learning, and Development
2.36	OBD	Occupied Bed Days
2.37	CSSD	Central Sterile Services Department

3. Standard Requirements and Specifications

This document outlines the six main process stages of clinical costing, and the accompanying guidelines. Healthcare facilities are mandated to adhere to this standard in the submission of cost data to the ADCCDC.

The Abu Dhabi Clinical Costing Standard and appendices should be read in conjunction with the Abu Dhabi Clinical Costing Guidelines as they are integral to their application.

3.1 Stage 1: IDENTIFY EXPENSES FOR COSTING

- 3.1.1 The costing process shall draw on all expense information from the general ledger applicable to the reporting period except for balance sheet expense items.
- 3.1.2 In addition to the expenses obtained from the general ledger, the organisation shall include all additional expenses incurred in the delivery of the costing products including:
 - 3.1.2.1.1 Applicable expenses generated by third parties but not held in the general ledger. These expenses are restricted to corporate and other shared services costs.
 - 3.1.2.1.2 Any relevant offsets and recoveries. Offsets and recoveries are restricted to errors corrections, secondment of staff, and recoveries of bad debts.
- 3.1.3 All expenses used for costing shall be mapped to the Cost Types as represented in Appendix 1 of this document.
- 3.1.4 Please refer to section 3.1 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage

3.2 Stage: 2 CREATE THE COST LEDGER

- 3.2.1 Move all applicable expenses (in lien with stage 1) into cost ledger. The cost ledger must reflect the link between the expenses in the general ledger and costing products.
- 3.2.2 The cost ledger must classify final cost centers as direct or overhead.
- 3.2.3 At a minimum, final direct cost centers must reflect those identified in Appendix 2.
- 3.2.4 Final direct cost centers must be mapped to Cost Buckets as per Appendix 2.
- 3.2.5 Please refer to section 3.2 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage.

3.3 Stage 3: ALLOCATE OVERHEADS

- 3.3.1 All expense items collected in overhead cost centers must be allocated to final cost centers by means of cost allocation statistics.
- 3.3.2 The method of allocating expenses aggregated in overhead final cost centers must consider consumption of this expense by other overhead final cost centers. This allocation must follow the reciprocal approach to reflect the resources consumed by an overhead final cost center before these expenses are allocated to final direct cost centers.
- 3.3.3 Where the overhead cost center does not consume expenses from other overhead cost centers, clause 3.3.2 does not apply.
- 3.3.4 Where health facilities are unable to allocate overhead costs in a reciprocal manner, a step-down approach must be applied.
- 3.3.5 The allocation statistics used to allocate expenses to final cost centers and between overhead cost centers must emphasise causality between the expense to be allocated and the final cost center that will absorb this cost. The healthcare facilities must use suggested allocation statistics and mechanism provided in Appendix 3 of this document.
- 3.3.6 All allocation decisions must be documented in detail and available for review and audit in line with Stage 6.1 Data Quality Framework.
- 3.3.7 Please refer to section 3.3 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage.

3.4 Stage 4: CREATE COSTING PRODUCTS

- 3.4.1 All products created by facilities must be grouped into product categories that sufficiently differentiate between patient products and non-patient products.
- 3.4.2 This Stage also requires aligning products with final direct cost centers and patient encounters (where patient related).
- 3.4.3 The healthcare providers must identify all products that it is responsible for producing in the reporting period. For this stage, individual products are defined as the organisation's final cost objects.
- 3.4.4 The healthcare providers must classify products into categories as required for decision making and reporting purposes. At a minimum, healthcare providers must classify products as per Appendix 4.
- 3.4.5 Please refer to section 3.4 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage

3.5 Stage 5: ALLOCATE COST TO FINAL PRODUCTS AND PATIENTS

- 3.5.1 All expense collected in final cost centers must be matched to the organisation's final products.
- 3.5.2 Final products must reflect all products for an organisation that are:

- 3.5.2.1 Completed in the reporting period; or
- 3.5.2.2 Partially completed in the reporting period (work in progress).
- 3.5.3 All cost allocation decisions must be documented in detail and available for review and audit in line with Stage 6.2 Reconciliation to Source Data.
- 3.5.4 Healthcare facilities must adopt linking rules to ensure maximum linking of patient products to patient encounters.
- 3.5.5 Please refer to section 3.5 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage

3.6 Stage 6: DATA REVIEW AND RECONCILIATION

3.6.1 Data Quality Framework

- 3.6.1.1 Healthcare facilities must review of the costing system setup and cost allocation methodology in conjunction with relevant organisation stakeholders annually.
- 3.6.1.2 Healthcare facilities must involve relevant stakeholders in development of source data feeds and cost allocation approaches.
- 3.6.1.3 Healthcare facilities must conduct quarterly review of source data for the purpose of identifying and addressing any deficiencies in the data, including file format, incomplete data, missing values, incorrect values, insufficient detail, and duplicates. This quarterly review must include a mechanism by which data errors identified are fed back to systems owners to enable timely correction of data errors in the source system.
- 3.6.1.4 Healthcare facilities must review preliminary costed outputs with costing and business stakeholders to confirm that values reported are within expected ranges and thresholds.
- 3.6.1.5 Healthcare facilities must maintain documentation of the costing processes and methodologies used, including how they align with these Abu Dhabi Clinical Costing Standards and Guidelines.
- 3.6.1.6 Please refer to section 3.6 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage.

3.6.2 Reconciliation To Source Data

- 3.6.2.1 Healthcare facilities must review and confirm:
 - 3.6.2.1.1 The total cost reported is in line with the total applicable expense defined in Stage 1 and reconciles to the healthcare facilities' (audited) financial statements.
 - 3.6.2.1.2 All costs related to delivery of the reportable products for the reporting period have been included in the costed results.
 - 3.6.2.1.3 All patient encounters related to the reporting period have been included in the costed results.
 - 3.6.2.1.4 The products reported are in line with the total applicable products defined in the Stage 4 and reconcile to applicable mandatory data submissions.
 - 3.6.2.1.5 For every cost data submission, healthcare facilities must submit a report to the Department of Health that reconciles the cost, encounter and product volumes to expense and activity information captured in the source data. This report will accompany the submission of annual cost data to the Department.
- 3.6.2.2 The Department of Health will undertake an annual audit of the healthcare facilities to assess the compliance with Abu Dhabi Clinical Costing Standards and Guidelines.
- 3.6.2.3 Please refer to section 3.6 of Abu Dhabi Clinical Costing Guidelines for detailed guidance and explanation of this stage.

4.Key stakeholder Roles and Responsibilities

4.1 Duties for Healthcare Providers

- 4.1.1 The standard applies to all Department of Health licensed healthcare facilities who provide clinical care in the Emirate of Abu Dhabi, including but not limited to:
 - 4.1.1.1 Hospitals
 - 4.1.1.2 Specialist day case and day surgery centers
 - 4.1.1.3 Long term care and rehabilitation
 - 4.1.1.4 Stand-alone specialist services (e.g., Dialysis, IVF, Dental etc.)
 - 4.1.1.5 Primary care centers
 - 4.1.1.6 Clinics and Others
- 4.1.2 Relevant healthcare facilities described in 4.1.1 must comply with the Abu Dhabi Clinical Costing Standard outlined in this document when submitting cost data to the Department.
- 4.1.3 Relevant healthcare facilities (4.1.1) must report and submit cost data to the Department of Health in accordance with the published Abu Dhabi Clinical Costing Guidelines that are integral part of Abu Dhabi Clinical Costing Standard.
- 4.1.4 Relevant facilities must comply with the Department of Health requests to inspect and audit cost models against these standards and accompanied guidelines and appendices.

4.2 Role of the Department of Health

- 4.2.1 The Department of Health will monitor relevant healthcare facilities regarding enforcement of these standards.
- 4.2.2 The Department of Health will provide feedback to assist facilities comply with the standards.
- 4.2.3 The Department of Health will financially sanction and penalize relevant facilities for non-compliance with the standards and associated requirements to submit data in accordance with the Abu Dhabi Clinical Costing Guidelines.

5.Monitoring and Evaluation

- 5.1 The Department of Health will remain the relevant authority to provide regulatory oversight. Abu Dhabi Clinical Costing Standards, Abu Dhabi Costing Guidelines and associated appendices & templates outline the importance of reconciliation of financial and patient data to ensure generation of robust cost data. The Department of Health will inspect and audit the cost data, submission process and cost models against these standards and guidelines to ensure adherence to published costing standards.

6.Enforcement and Sanctions

- 6.1 Healthcare facilities licensed by the Department of Health must comply with the terms and requirements of this Standard and other related regulatory requirements/
- 6.2 The Department of Health may impose sanctions in relation to any breach of requirements under this standard in accordance with the Disciplinary regulation of the Healthcare Sector.

7. Relevant Reference Documents

No.	Reference Date	Reference Name	Relation Explanation / Coding / Publication Links
1		The Australian Hospital Patient Costing Standards	<p>The content of this Standard is adapted from The Australian Hospital Patient Costing Standards & were referenced in the production of this document The Australian Independent Hospital and Aged Care Pricing Authority material. It was used as supplied under Creative Commons License 3.0, which in clause 3A, allows for worldwide, royalty, free, non-exclusive, perpetual license to create and reproduce one or more derivative works. Please refer to below link for details on Creative Commons License</p> <p>https://www.ihacpa.gov.au/resources/australian-hospital-patient-costing-standards-version-42</p>

8. Appendices

Appendix 1: COST TYPES

This appendix defines the mapping of account codes to cost type categories to be used when reporting to the ADCCDC.

Expenses will be grouped to represent the following categories:

Cost Type Code	Cost Type Description
SWNurs	Salaries and Wages Nursing
SWDoc	Salaries and Wages Medical
SWAllied	Salaries and Wages Allied Health professionals, including technicians (e.g., operating room)
SWNonClin	Salaries and Wages Non-Clinical staff
Laboratory	Laboratory Supplies
Imaging	Imaging Supplies
Pharmacy	Pharmacy Drugs and Services
Prostheses	Implantable devices
MS	All other medical and surgical supplies
Hotel	Cleaning, linen and laundry, patient food
GS	All other goods and services
Depreciation	Building and Equipment depreciation and amortization
OHF	Overhead cost of healthcare facility
OHC	Overheads cost from Corporate Office / Shared Services

Cost of Labour:

The cost of labour will identify salaries, wages and on-costs, where salaries and wages are further be broken down into categories which are sufficiently similar in role, functions and skill.

The ADCCDC Labor type reporting categories are:

- Nursing Salaries and Wages, including:
 - Registered Nurses.
 - Enrolled Nurses.
 - Establishment Based Student Nurses; and
 - Trainee/pupil nurse.
- Physician Salary and Wages, including:
 - Specialist Practice Medical Officers (e.g., Consultants).
 - Registrars.
 - Medical Residents and Interns.
 - Other Medical staff.
- Allied Health Salary and Wages, including:
 - Audiology
 - Chiropractic
 - Dietetics
 - Exercise physiology

- Occupational therapy
- Optometry
- Oral health
- Orthoptics
- Orthotics and prosthetics
- Osteopathy
- Physiotherapy
- Podiatry
- Psychology
- Social work
- Speech pathology
- Operating Room and other procedure suite technicians
- Non-Clinical staff, including:
 - Other Personal Care staff - Other Personal Care staffs are those staff that primarily provide personal care to patients or residents. These staff however are not formally qualified or are undergoing training in nursing or allied health professions. The function provided by these staff must also not be an overhead in nature. Examples of staff in this category, include: – attendants, – assistants or home assistants, – home companions, – family aides, – ward helpers, assistants or assistants in nursing.
 - Other Administrative, Maintenance and Clerical Staff - Other administrative, maintenance and clerical staff are the staff engaged in administrative, maintenance and clerical duties. Staff in this category do not carry out services that are carried out by Medical, nursing, diagnostic and health professionals. Examples of relevant staff include the management of the health service, ward clerks, health information managers and other administrative staff.

Non-Labour Cost Type Categories:

- Laboratory
 - Laboratory costs are goods and services used in the provision of a Laboratory service and consumables (including reagents, stains and calibration products, etc.) or the actual cost as billed by a provider. This includes the cost of Laboratory staff.
- Imaging
 - Imaging costs are goods and services used in the provision of an imaging service (including film, contrast, etc.) or the actual cost as billed by a healthcare provider. This includes the cost of Imaging staff.
- Pharmacy
 - Pharmacy costs are goods and services used in the provision of a pharmaceutical service and consumables or the actual cost as billed by a healthcare provider. They include the purchase, production, distribution, supply and storage of drug products and clinical pharmacy services and includes the cost of Pharmacy staff.
- Prostheses
 - Prostheses costs are goods and services used in the provision of services to implant prostheses, human tissue item and other medical devices. These costs relate to specific prostheses accounts in the General Ledger, which will also be mapped to the prostheses cost bucket.

- Medical and surgical supplies
 - Medical and surgical supplies costs are goods and services used in the provision of surgical services excluding those used for prostheses (as specified above).
- Hotel
 - Hotel includes cleaning products and services; linen and laundry services; food services (patients); and general hotel services. This includes the cost of staff.
- All Other Goods and Services
 - Goods and Services not previously specified should be included in this category.
- Depreciation and amortisation

Depreciation and amortisation costs are the systematic allocation of the depreciable amount of an asset (building or equipment) over its useful life in line with applicable International Financial Reporting Standards. Building depreciation includes fixed fit-out such as items fitted to the building such as lights and partitions. Equipment depreciation includes non-fixed building fit-out such as theatre tables, moveable furniture, and chemotherapy chairs.

APPENDIX 2: MAPPING OF FINAL COST CENTERS TO COST BUCKETS

This appendix defines the mapping of final cost centers to cost buckets, to be used when reporting to the ADCCDC. Cost buckets are aggregations of similar final cost center types.

Cost Buckets will be grouped to represent the following broad categories:

Cost Bucket Code	Cost Bucket Description
Allied	Allied Health services including technicians
Anaesthesia	Anaesthesia services
ED	Emergency department
ICU	Intensive care, critical care, coronary care, and high dependency units
Imaging	Imaging services
Laboratory	Laboratory services
Physician	Physician services
OP	Outpatient clinics
OR	Operating room
Other	Other services
Pharmacy	Pharmacy services
Prosthesis	Patient implants
Supplies	Medical and surgical supplies
SPS	Special procedure suites – e.g., endoscopy, cath lab
Ward	Ward Services

The mapping of final direct cost centers to cost buckets is shown in the table below:

Final Direct Cost Centers	Clinical service	Cost Bucket
Audiology	Allied Health	Allied
Dietetics	Allied Health	Allied
Occupational Therapy	Allied Health	Allied
Physiotherapy	Allied Health	Allied
Podiatry	Allied Health	Allied
Prosthetics and Orthotics	Allied Health	Allied
Social Work	Allied Health	Allied
Speech Pathology	Allied Health	Allied
Anaesthesia	Anaesthesia	Anaesthesia
Post Anesthesia Care Unit (PACU)	Anaesthesia	Anaesthesia
Pain Treatment	Anaesthesia	Anaesthesia
Urgent Care Center Hospital Based	Emergency Department	ED
Urgent Care Center Non-Hospital Based	Emergency Department	ED
Emergency Department	Emergency Department	ED
Burn Care Intensive Care Unit	ICU	ICU
Cardiac/Cardiovascular Intensive Care Unit	ICU	ICU
General Intensive Care Unit	ICU	ICU
Medical/Surgical Intensive Care Unit	ICU	ICU
Neonatal Intensive Care Unit (NICU)	ICU	ICU
Neurology / Neurosurgical Intensive Care Unit	ICU	ICU

Final Direct Cost Centers	Clinical service	Cost Bucket
Paediatric Intensive Care Unit (PICU)	ICU	ICU
Surgical Intensive Care Unit	ICU	ICU
Computerized Tomography (CT)	Imaging	Imaging
Diagnostic Radiology (General)	Imaging	Imaging
Interventional Radiology	Imaging	Imaging
Interventional Radiology Clinic	Imaging	Imaging
Magnetic Resonance Imaging (MRI)	Imaging	Imaging
Mammography	Imaging	Imaging
Nuclear Medicine	Imaging	Imaging
Other Imaging Services	Imaging	Imaging
Outpatient Imaging	Imaging	Imaging
Ultrasound	Imaging	Imaging
Vascular Radiology	Imaging	Imaging
Computerized Tomography (CT)	Imaging	Imaging
Anatomic Pathology	Laboratory	Laboratory
Biochemistry	Laboratory	Laboratory
Blood Bank	Laboratory	Laboratory
Cytogenetic	Laboratory	Laboratory
Cytology	Laboratory	Laboratory
Flowcytometry	Laboratory	Laboratory
General Laboratory	Laboratory	Laboratory
Hematology	Laboratory	Laboratory
Histology	Laboratory	Laboratory
Histopathology	Laboratory	Laboratory
Immunology	Laboratory	Laboratory
Lab test services	Laboratory	Laboratory
Microbiology	Laboratory	Laboratory
Molecular Biology	Laboratory	Laboratory
Other Laboratory Services	Laboratory	Laboratory
Other Pathology	Laboratory	Laboratory
Pathology Surgical	Laboratory	Laboratory
Serology	Laboratory	Laboratory
Stem cells Lab	Laboratory	Laboratory
Phlebotomy	Laboratory	Laboratory
Physician - Allergy/Immunology	Medical Allergy Immunology	Physician
Physician - Anaesthesia	Medical Anaesthesia	Physician
Physician - Breast Surgery	Medical Breast Surgery	Physician
Physician - Non-Invasive Cardiology	Physician Cardiology	Physician
Physician - Dentistry Endodontics	Physician Dentistry	Physician
Physician - Dentistry General	Physician Dentistry	Physician

Final Direct Cost Centers	Clinical service	Cost Bucket
Physician - Dentistry Orthodontics	Physician Dentistry	Physician
Physician - Dentistry Pedodontics	Physician Dentistry	Physician
Physician - Dentistry Periodontics	Physician Dentistry	Physician
Physician - Dentistry Prosthodontics	Physician Dentistry	Physician
Physician - Dermatology	Physician Dermatology	Physician
Physician - Accident Emergency	Physician ED	Physician
Physician - Accident Emergency Paediatrics	Physician ED	Physician
Physician - Endocrinology	Physician Endocrinology	Physician
Physician - ENT	Physician ENT	Physician
Physician - General Practice	Physician Family Medicine	Physician
Physician - Gastroenterology	Physician Gastroenterology	Physician
Physician - General Medicine	Physician General Medicine	Physician
Physician - Bariatric Surgery	Physician General Surgery	Physician
Physician - General Surgery	Physician General Surgery	Physician
Physician - Geriatric Medicine	Physician Geriatric Medicine	Physician
Physician - ICU	Physician ICU	Physician
Physician - Radiology	Physician Imaging	Physician
Physician - Infectious Disease	Physician Infectious Disease	Physician
Physician - Invasive Cardiology	Physician Invasive Cardiology	Physician
Physician - Laboratory	Physician Laboratory	Physician
Physician - Maxillofacial Surgery	Physician Maxillofacial Surgery	Physician
Physician - Nephrology	Physician Nephrology	Physician
Physician - Neurology	Physician Neurology	Physician
Physician - Neurosurgery	Medical Neurosurgery	Physician
Physician - ObsGyn	PhysicianObsGyn	Physician
Physician - Occupational Health	Physician Occupational Health	Physician
Physician - Oncology	Physician Oncology	Physician
Physician - Ophthalmology	Physician Ophthalmology	Physician
Physician - Orthopaedics	Physician Orthopaedics	Physician
Physician - Paediatric ICU	Physician Paediatric	Physician
Physician - Paediatric Ambulatory	Physician Paediatric	Physician
Physician - Paediatric Neonatology	Physician Paediatric	Physician
Physician - Paediatric General	Physician Paediatric	Physician
Physician - Paediatric Haematology	Physician Paediatric	Physician
Physician - Paediatric Neurology	Physician Paediatric	Physician
Physician - Paediatric Surgery	Physician Paediatric	Physician

Final Direct Cost Centers	Clinical service	Cost Bucket
Physician - Paediatric Cardiology	Physician Paediatric	Physician
Physician - Paediatric Endocrinology	Physician Paediatric	Physician
Physician - Paediatric Gastroenterology	Physician Paediatric	Physician
Physician - Paediatric Orthopaedics	Physician Paediatric	Physician
Physician - Paediatric Oncology	Physician Paediatric	Physician
Physician - Paediatric Infectious Disease	Physician Paediatric	Physician
Physician - Paediatric Nephrology	Physician Paediatric	Physician
Physician - Paediatric Pulmonology	Physician Paediatric	Physician
Physician - Paediatric Rheumatology	Physician Paediatric	Physician
Physician - Palliative Care	Physician Palliative Care	Physician
Physician - Plastic Surgery	Physician Plastic Surgery	Physician
Physician - Psychiatry Adult	Physician Psychiatry	Physician
Physician - Paediatric Psychiatry	Physician Psychiatry	Physician
Physician - Pulmonary	Physician Pulmonary	Physician
Physician - Radiation Oncology	Physician Radiation Oncology	Physician
Physician - Rehabilitation	Physician Rehabilitation	Physician
Physician - Rheumatology	Physician Rheumatology	Physician
Physician - Oral Maxillo Facial Surgery	Physician Surgical	Physician
Physician - Thoracic Surgery	Physician Thoracic Surgery	Physician
Physician - Trauma Surgery	Physician Trauma Surgery	Physician
Physician - Urology	Physician Urology Surgery	Physician
Physician - Vascular Surgery	Physician Vascular Surgery	Physician
Anticoagulation Clinic	Outpatient Clinic	OP
Bariatric Clinic	Outpatient Clinic	OP
Cardiology Clinic	Outpatient Clinic	OP
Chemical Dependency Clinic	Outpatient Clinic	OP
Dermatology Clinic	Outpatient Clinic	OP
Diabetic Clinic	Outpatient Clinic	OP
EAR. NOSE. THROAT CLINIC	Outpatient Clinic	OP
Employee Health Clinic	Outpatient Clinic	OP
Endocrinology Clinic	Outpatient Clinic	OP
Family Practice Clinic/PHC	Outpatient Clinic	OP
Fertility Services Clinic (IVF)	Outpatient Clinic	OP
Gastroenterology Clinic	Outpatient Clinic	OP
General Medicine Clinic	Outpatient Clinic	OP
General Surgery Clinic	Outpatient Clinic	OP
Hematology Clinic	Outpatient Clinic	OP
Infectious Disease Clinic	Outpatient Clinic	OP
Infertility Services	Outpatient Clinic	OP
Lactation Clinic	Outpatient Clinic	OP

Final Direct Cost Centers	Clinical service	Cost Bucket
Neonatology Clinic	Outpatient Clinic	OP
Nephrology Clinic	Outpatient Clinic	OP
Neurology Clinic	Outpatient Clinic	OP
Neurosurgery Clinic	Outpatient Clinic	OP
Obstetrics / Gynaecological Clinic	Outpatient Clinic	OP
Occupational Medicine Clinic	Outpatient Clinic	OP
Oncology / Hematology Clinic	Outpatient Clinic	OP
Oncology Clinic	Outpatient Clinic	OP
Ophthalmology Clinic	Outpatient Clinic	OP
Orthopaedic Clinic	Outpatient Clinic	OP
Other General Clinics	Outpatient Clinic	OP
PAEDIATRIC RHEUMATOLOGY CLINIC	Outpatient Clinic	OP
Paediatric Clinic	Outpatient Clinic	OP
Paediatric Surgery Clinic	Outpatient Clinic	OP
Peripheral Vascular Lab	Outpatient Clinic	OP
Plastic Surgery Clinic	Outpatient Clinic	OP
Pre-Admission / Pre-Procedure Testing	Outpatient Clinic	OP
Psychiatry / Psychology Clinic	Outpatient Clinic	OP
Respiratory Care/Therapy	Outpatient Clinic	OP
Respiratory Clinic	Outpatient Clinic	OP
Rheumatology Clinic	Outpatient Clinic	OP
Urology Clinic	Outpatient Clinic	OP
Women's Health Clinic	Outpatient Clinic	OP
Occupational Rehabilitation	Rehabilitation	OP
Other Rehabilitation Therapies Services	Rehabilitation	OP
Physical Medicine and Rehabilitation Clinic	Rehabilitation	OP
Ambulatory Surgery Center	Day Surgery	OR
Day Surgery	Day Surgery	OR
Operating Room	Operating Room	OR
Community Education and Outreach Services	Community Outreach	Other
Home Health	Home Health	Other
Clinical Genetics	Genetics	Other
Dental Lab	Dental	Other
General Dentistry	Dental	Other
DPSC	Non-Patient Product	Other
Kidney Acquisition	Organ Retrieval	Other
Cornea Acquisition	Organ Retrieval	Other
Heart Acquisition	Organ Retrieval	Other

Final Direct Cost Centers	Clinical service	Cost Bucket
Lung Acquisition	Organ Retrieval	Other
Liver/Pancreas Acquisition	Organ Retrieval	Other
OPAT - Antibiotic Injection Therapy	Other clinical	Other
Other Clinical Services	Other clinical	Other
Palace Services	Palace	Other
Royal Wing	Palace	Other
Ground Ambulance Service	Patient Transport	Other
PECU-Sub-Acute Care	PECU	Other
Research Center	Research	Other
Sub - Acute Care	Sub-Acute Care	Other
Clinical Staff Education	Training and Education	Other
Education Shield – Medical Student Education	Training and Education	Other
Gulf Medical College Services	Training and Education	Other
MEDICAL EDUCATION ADMINISTRATION	Training and Education	Other
MEDICAL EDUCATION TRAINEES - IN UAE	Training and Education	Other
MEDICAL EDUCATION TRAINEES - OUTSIDE UAE	Training and Education	Other
NON-CLINICAL PROFESSIONAL TRAINING - IN UAE	Training and Education	Other
NURSING EDUCATION TRAINEES - IN UAE	Training and Education	Other
Pharmacy Academics and Training	Training and Education	Other
Tawteen Training	Training and Education	Other
TLD SERVICES	Training and Education	Other
Training and Development	Training and Education	Other
PharmaCo	Pharmacy	Pharmacy
Pharmacy Ambulatory/Clinic Services	Pharmacy	Pharmacy
Pharmacy Inpatient Services	Pharmacy	Pharmacy
Pharmacy Main Store	Pharmacy	Pharmacy
Pharmacy Retail/Prescription Services	Pharmacy	Pharmacy
Pharmacy Services	Pharmacy	Pharmacy
Prostheses and Implants	Prosthesis	Prosthesis
Apheresis services	Special Procedure Suite	SPS
Medical Physicist	Special Procedure Suite	SPS
Radiation Therapy	Special Procedure Suite	SPS
Dialysis Clinical	Special Procedure Suite	SPS
Other Dialysis Services	Special Procedure Suite	SPS
Electrophysiology Laboratory	Special Procedure Suite	SPS
Other Cardiovascular Services (e.g.,	Special Procedure Suite	SPS

Final Direct Cost Centers	Clinical service	Cost Bucket
Echocardiograms)		
Cardiac Catheterisation Laboratory	Special Procedure Suite	SPS
Non-Invasive Diagnostic Cardiology	Special Procedure Suite	SPS
Endoscopy (GI) Laboratory	Special Procedure Suite	SPS
Infusion Therapy	Special Procedure Suite	SPS
Neurodiagnostic Laboratory (EEG)	Special Procedure Suite	SPS
Sleep Diagnostic Center	Special Procedure Suite	SPS
HCPCS	HCPCS	Supplies
Hospice / Palliative Care Unit	Ward	Ward
Obstetric Wards	Ward	Ward
Medical Wards	Ward	Ward
Medical Surgical Wards	Ward	Ward
Oncology Wards	Ward	Ward
Paediatric Wards	Ward	Ward
Surgical Wards	Ward	Ward
VIP Wards	Ward	Ward
Royal Wards	Ward	Ward
Surgical Services Materials Management	HCPCS	Supplies

APPENDIX 3: OVERHEAD ALLOCATION STATISTICS

This appendix has two reference tables. The first includes suggested overhead allocation statistics that may be applied. The second table provides suggestions as to where to use these statistics.

Suggested overhead allocation statistics

Statistic Code	Statistic Description
ActualPatsCost	Actual cost of service directly allocated to a patient either externally or internally billed e.g., patient meals, transport cost.
ActualPatUnits	Actual units of service directly allocated to a patient either externally or internally billed e.g., patient meals, transport, interpreter services.
Allpats	Count of all patient encounters
BuildingDepnCosts	Total Costs of building depreciation costs
TotalAss	Total assets by (count or value)
ExpG&S	Goods and services expenses from general ledger for total hospital or specific service e.g., surgical.
ExpSalwageAll	Salary and wages per cost area for all staff applied to the total hospital or a specific service.
ExpSalwageMed	Salary and wages per cost area for medical staff applied to the total hospital or a specific service.
ExpSalwageNurs	Salary and wages per cost area for nursing staff applied to the total hospital or a specific service.
ExpSalwageAH	Salary and wages per cost area for allied health staff applied to the total hospital or a specific service.
Floor	Floor space (sq. metres).
Floorfrq	Floor space * frequency of cleaning.
AllFTE	Full time equivalents for all staff applied across the total hospital or a specific service.
MedFTE	Full time equivalents for medical staff applied across the total hospital or a specific service.
NurseFTE	Full time equivalents for nursing staff applied across the total hospital or a specific service.
AlliedFTE	Full time equivalents for allied health staff applied across the total hospital or a specific service.
HeadCountAll	Total staff head count applied across the total hospital or a specific service.
HeadCountMed	Medical staff head count applied across the total hospital or a specific service.
HeadCountNurse	Nursing staff head count applied across the total hospital or a specific service.
HeadCountAH	Allied Health staff head count applied across the total hospital or a specific service.
InpatAll	Number of inpatient discharges or admissions.
MedAss	Medical assets (by count or value)
Medrec	Time taken to code medical record (admitted and non-admitted).
Computers	Number of computers
OBD	Occupied bed days (admitted patients)
OutpatOcc	Outpatient occasions of service
Phones	Number of telephone lines connected.
Roster	Roster of cleaning and other services
Stores	Stores issued

TotAss	Total assets
WardAdm	Ward admissions

Suggested overhead allocation mechanisms:

Overhead Cost Center	Applicable statistics		
	1 st	2 nd	3 rd
Allied Health Administration	ActualPatUnits	Allied FTE	ExpSalwageAH
Biomedical Engineering	MedAss	TotAss	TotalExp
CSSD	TotExp	InpatAll	AllPats
Cleaning	Floorfrq	Roster	Floor
Computing	Computers	AllFTE	HeadcountAll
Energy Supplies	Floor	TotalExp	AllFTE
Executive Services and hospital management	TotalExp	AllFTE	HeadcountAll
Finance	TotalExp	AllFTE	HeadcountAll
Patient Food Services	ActualPatUnits	OBD	InpatAll
Health Information Management	AllPats	InpatAll	TotalExp
Human Resources	HeadcountAll	AllFTE	ExpSalwageAll
Infection Control	MedFTE	NurseFTE	OBD
Insurance - Property	TotAss	TotalExp	ExpSalwageAll
Medical Indemnity Insurance	MedFTE	ExpSalwageMed	TotalExp
Library	HeadcountAll	AllFTE	ExpSalwageAll
Linen & Laundry Services	OBD	AllPats	TotalExp
Maintenance, Engineering & Repairs	Floor	AssetCosts	TotalExp
Medical Administration	HeadcountMed	MedFTE	ExpSalwageMed
Medical Records	AllPat	InpatAll	OBD
Nursing Administration	HeadcountNurse	NurseFTE	ExpSalwageNurse
Patient Administration	AllPat	InpatAll	OBD
Patient Transport	ActualPatUnits	AllPat	TotalExp
Public Relations & Marketing	TotalExp	AllPat	OBD
Security	AllFTE	AllPat	Floor
Telecommunications	Phones	AllFTE	HeadcountAll
Utilities	Floor	AllPat	TotalExp

APPENDIX 4: LIST OF PATIENT PRODUCTS

Below is the minimum list of products to be generated by healthcare providers:

Category	Type	Description	Source Dataset	Data Items	Product Example(s)
Physician Products	Patient Admission	Activity surrounding patient admission and treatment plan	Encounter, Ward	Responsible Physician Specialty, Encounter Start Date/Time, Ward Code	DocAdmission_Orthopaedics_WardA
Physician Products	Patient Discharge	Activity surrounding patient discharge	Encounter, Ward	Responsible Physician Specialty, Encounter End Date/Time, Ward Code	DocDischarge_Orthopaedics_WardA
Physician Products	Ward Round	Bedside attendance / round with patients to check progress against treatment plan	Encounter, Ward	Responsible Physician Specialty, Ward Code, Ward Start Date/Time, Ward End Date/Time	DocWardRound_Orthopaedics_WardA
Physician Products	Procedure	Operating on patients in the operating room or other procedure suites, such as the cardiac catheterization laboratory, or the endoscopy suite	Encounter, Procedure	Responsible Physician Specialty, Operating Room Code, (Procedure Start/Date time, Procedure End/Date time (for surgeons)), (Anaesthesia Start/Date time, Anaesthesia End/Date time (for Anaesthetists))	Doc_Orthopaedics_Proc Mins; Med_Anaesthesia_ProcMins
Physician Products	Outpatient Clinic Attendance	Attending to patients in outpatient or other non-admitted clinics	Encounter	Responsible Physician Specialty, Patient Classification (clinic code), Encounter Start Date/Time, Outpatient Appointment Type, Outpatient Attendance Code	Doc_Orthopaedics_Clinic_First; Med_Orthopaedics_Clinic_FollowUp;
Physician Products	Internal Consultations	Attending to patients under the care of physicians from another specialty	Encounter, Other (Inpatient consult Orders)	Responsible Physician Specialty, Intervention Date/Time, Internal Consult Code	Doc_Orthopaedics_IntConsult
Ward Products	Patient Admission	Nursing activity surrounding patient admission and treatment plan	Ward	Ward Code, Ward Start Date/Time	WardA_Admit
Ward Products	Patient Discharge	Nursing activity surrounding patient discharge summary	Ward	Ward Code, Ward End Date/Time	WardA_Disc

Category	Type	Description	Source Dataset	Data Items	Product Example(s)
Ward Products	Ward Duration	Patient length of stay on the ward	Ward	Ward Code, Ward Start Date/Time, Ward End Date/Time	WardA_Bedday
Ward Products	Ward Transfer	Patient is moved to procedure suite or another ward	Ward	Ward Code, Ward End Date/Time (used to calculate movement to new setting)	WardA_Transfer
Procedure Suite Products	Procedure Suite Setup	Activity associated with preparing the procedure suite for the procedure	Procedure	Procedure Room Code, Procedure Start Date/Time	Proc_Setup
	Procedure Suite Minutes	Duration (in minutes) patient is undergoing procedure (usually measured from time of knife to skin to leaving the procedure suite)	Procedure	Procedure Room Code, Procedure Start Date/Time, Procedure End Date/Time	Proc_Minutes
	Recovery Minutes	Duration (in minutes) patient spends in the recovery room before being transferred to another ward or discharged	Procedure	Procedure Room Code, Recovery Start Date/Time, Recovery End Date/Time	Recovery_Minutes
Prostheses And Other High-Cost Consumables	Prostheses and high-cost consumables (e.g., HCPCS)	Prostheses and other high-cost consumable items count	Prostheses /HCPCS	Item code, Date/Time of implant, Price	Prostheses_Pacemaker, HCPCS_Catheter
Laboratory Products	Laboratory Tests	Microbiology, biochemistry, histopathology (etc) tests (modality)	Laboratory Orders	Test code, Date/Time test received, Price	Microbiology_TestX, Biochemistry_TestY
Imaging Products	Imaging Tests	X-Ray, MRI, CT, Ultrasound, PET (etc) tests (modality)	Imaging Orders	Test code, Date/Time test received, Price	MRI_TestA, Ultrasound_TestB, X-Ray_TestC
Pharmacy Products	Dispensed Drugs	Drugs dispensed by the pharmacy department to patients	Pharmacy Orders	Drug code, Date/Time drug dispensed, Drug Price	Pharmacy_DrugA, Pharmacy_DrugB
Other Products	Allied Health Intervention	Allied health interventions provided to patients in different settings such	Allied Health	Allied Health Department code (e.g., Physio), Date/Time intervention, intervention type	Physio_knee, Diet_EnteralNutrition

Category	Type	Description	Source Dataset	Data Items	Product Example(s)
		as inpatient/out patient/home			
Other Products	Diagnostic Tests	Diagnostic tests carried out by various clinical departments	Encounter, Department module	Clinical Department code (e.g., Neurology), Date/Time test, test type	Cardio_ECG, Neuro_EEG, Respiratory_SleepStudy
Other Products	Radiotherapy	Activities related to the provision of radiotherapy to patients	Encounter, Department module	Activity code (e.g., Planning, Dosimetry, Mould Room, Treatment), Date/Time activity, activity type	RadOnc_Planning, RadOnc_Dosimetry, RadOnc_MouldRoom, RadOnc_TreatmentX, RadOnc_TreatmentY