

14.0 Complementary and Alternative Medicine Centers

14.1 Introduction

14.1.1 Description

Complementary and Alternative Medicine (CAM) is a broad term used to describe an array of healthcare approaches outside the conventional, mainstream or 'Western' medicine. Whilst generally used interchangeably, the two terms refer to different concepts. 'Complementary' refers to using a non-mainstream approach together with conventional medicine, whilst 'alternative' refers to using a non-mainstream approach to healthcare which replaces conventional medicine.

Within the context of the broader health system, CAM is usually provided on an outpatient basis. An integrative approach of combining CAM with conventional therapy is being increasingly offered by healthcare providers in managing symptoms and side effects of treatment, health promotion and general improvement in health or well-being.

CAM services may generally be classified into one of two subgroups- natural products or mind and body practices. Natural products may consist of dietary, vitamin and mineral supplements, whilst mind and body practices encompass a diverse range of procedures and techniques administered by a trained practitioner, including yoga, massage therapy, acupuncture and meditation. There are also CAM approaches which do not fit into either of these groups including homeopathy, naturopathy, traditional Chinese medicine and traditional healing practices.

Below is a list of common CAMs:

- Acupuncture
- Aromatherapy
- Ayurveda
- Biofeedback
- Chiropractic and osteopathic
- Chinese herbal medicine
- Electromagnetic therapy
- Homeopathy
- Hypnosis
- Iridology
- Kinesiology
- Massage therapy
- Meditation
- Movement therapies including Feldenkrais method, Alexander technique, Pilates, Rolfing
- Structural Integration, Trager psychophysical integration
- Naturopathy
- Qi gong
- Reflexology
- Reiki
- Tai chi
- Yoga.

The type, range and scope of services will determine the size, design, functional requirements and relationships within and outside of the CAM Center. This shall be described in the Operational Policy of the Center.

Facilities and equipment shall be as necessary to accommodate the requirements of the Scope of Services and Operational Policy. The CAM Center can be incorporated as part of another health facility or as a freestanding and independently-operated center.

Relevant local authority statutory requirements are to be complied with.

14.2 Planning

14.2.1 *Planning Models*

Dedicated CAM Center

It is highly recommended that the CAM Center be located in a dedicated space. If incorporated into a health facility, the CAM Center should be readily accessible by ambulatory patients and located within close proximity to outpatient clinic rooms. A centralized CAM Center maximizes operational flow and contains and maintains the environment and ambience created by the Center.

Unit/Department-Based CAM Treatment and Consultation Spaces

Treatment and consultation spaces may be made available within particular departments throughout a hospital and be colocated with Allied Health services and spaces, although this is not a commonly adopted model and may result in duplication of manpower and equipment. Increasingly, dedicated CAM Centers are located adjacent to Cancer Day Care Units and Fertility and Women's Clinics as their uptake and integration with treatments in these specialty areas become more common place.

14.2.2 *Operational Models*

The CAM Center may extend its service from a single health care facility to outlying facilities. Specific design requirements for manufacture, storage and dispatch of products, and the provision of treatment and services shall be considered for different operational models.

Integrated CAM Center

An integrated CAM Center is colocated with a hospital, medical clinic or other health facility. The facility's operational policy shall determine, in part, the products and services to be supplied by the Center, complementing conventional mainstream medicine, as well as establishing the referral pathways between the Center and the health facility. Products and services beyond the scope of the facility's requirements shall be negotiated and predefined.

Private CAM Center

A private CAM Center may be freestanding to any health facility and its operational model will resemble a private business. The success of the private CAM center is subject to market demand, the products and services supplied and the availability of trained and qualified practitioners. A private Center may also choose to establish more formal relationships with health facilities situated geographically close to optimize business operations, but this will depend on scope of services and products provided.

Treatment and Procedural Services

Treatment and procedural services offered by CAM Centers require sufficient space and equipment for delivery of such services. This may range from large studios for yoga and meditation practices to small treatment spaces for massage therapy and acupuncture.

Product Manufacture

If dietary supplements or natural products are to be manufactured onsite, these must comply with local and international regulatory requirements. Extemporaneous manufacturing will require sufficient space for compounding products. Sterile handling and manufacturing techniques may be needed for the safe manufacture of products for ingestion. The Center must include specialized space and equipment for the refinement, testing, compounding, packaging, labelling and storage of these products. Manufacturing practices and products should be aligned and negotiated with the hospital's pharmacy procedures and products if the Center is colocated with such a health facility.

Hours of Operation

The CAM Center will generally provide services five-days a week, up to 12-hours a day, with hours of operation complementing outpatient clinics and services.

14.2.3 Functional Areas

The functional areas of a CAM Center may be divided into two types – ‘accessible’ and ‘restricted’ as follows:

Public Areas

- Counter/Reception
- Waiting areas for patients; it is possible to share waiting areas with an adjoining unit
- Patient counselling and consult areas
- Patient treatment and consultation spaces in the company or under the direction of a staff member.

Restricted/Staff Areas

- Dispensing area
- Preparation and manufacturing areas of non-sterile products
- Active store for stock storage
- Bulk stores including an unpacking area
- Secured storage for refrigerated items and flammable goods as required
- Clinical Trial facilities if required; clinical trials in CAM Centers may include trials of products and therapies
- Staff Areas including Offices, Workstations, File Stores, Meeting Rooms, Staff Room, Change and Toilets.

Optional Areas

Depending on the scope of services and Operational Policy, the CAM Center may also include:

- Sterile manufacturing suites, along with support facilities including Anterooms, Change Rooms and Storage
- Facilities for clinical trials, which may include dispensing areas, additional treatment spaces, secured storage and records area and workstations
- Extemporaneous manufacturing area which requires extra space for compounding products.

CAM Counter/Reception

The CAM Center Counter/Reception area should be prominent, well-signposted and if also used for cashier functions, appropriate security should be added for cash handling. Patients will present at the counter for products or services and wait for a practitioner to dispense and counsel on the product or lead them to a treatment/consultation space for services.

Waiting Areas

Waiting areas will need to accommodate a range of patients with varying mobility and should be designed for accessibility. Waiting areas will also require ready access to public amenities, baby change and feeding areas, refreshments, play facilities (optional) and public telephones.

Patient Counselling and Consult Areas

Patient counselling and consult areas should be immediately adjacent or readily accessible from the Counter/Reception and Waiting areas. If not entirely enclosed, the area should be designed in such a way to create perceived privacy using a confined space and barricades. Counselling and Consult areas may have dual access for patients and Center staff to increase security.

Treatment/Consultation Space

A Treatment or Consultation space should be accessible to the patient accompanied by a Center staff member or practitioner. It can be located within or exterior to the central CAM Center and requires equipment suitable to the services to be provided within that space. This is determined by the scope of services and may include, but is not limited to:

- Bench and hand-washing basin with fittings
- Patient treatment bench, table or chair for acupuncture and massage
- Movement therapy machines and equipment for Pilates and other manipulative therapies
- Flashlight, magnifying glass, cameras and slit-lamp microscopes for iridology
- Adequate lighting and ventilation
- Durable, stain-resistant and comfortable flooring, particularly for the delivery of yoga and floor-based therapies.

Restricted/Staff Areas

Dispensing Area

A dedicated area for dispensing should enable practitioners to prepare, pack and label products. The dispensing area should have the following equipment nearby to complement and facilitate its operations:

- Shelving and reference texts
- Adequate lighting
- Hand-washing facilities
- Bench for preparation adjacent to dispensing units.

Manufacturing Area

Manufacturing of products in the CAM Center involves the preparation of oral or topical dosage forms, often requiring little manipulation of the main ingredients.

The following minimum elements shall be included if manufacturing is performed onsite:

- Confined dedicated room with HEPA filtered air
- Hand washing facilities directly located next to the entry/exit point of the room
- Non-pervious surfaces and easy to clean walls and flooring
- Bulk compounding area
- Provision of packaging and labelling area
- Quality control area.

Storage

The following minimum elements, in the form of cabinets, shelves, and/or separate rooms or closets, shall be included as required:

- Bulk storage
- Active storage
- Refrigerated storage
- Volatile fluids and alcohol storage with construction as required by the relevant regulations for substances involved
- Storage for general supplies and equipment not in use.

Store – Refrigerated

The refrigerated store can be a room/bay which consists of multiple refrigerators for storing specific ingredients and products; alternatively, a commercial grade cool room may be used. Refrigerated storage should be located in proximity to Assembly/Preparation, other storage areas and the manufacturing area of the Center. Refrigerated storage areas in the CAM Center require the following considerations:

- All access doors shall be lockable
- Temperature monitoring system installed and connect to a centralized alarm/warning system.

Clinical Trials Area

Clinical trials in Complementary and Alternative Medicine require the same application of stringent policies and regulations as clinical medicine trials, particularly in the way of data and safety monitoring, privacy and confidentiality, and the protection of human and animal subjects.

As treatment modes in CAM related clinical trials are varied, the space requirements will be determined by the area of expertise, interests and focus of the CAM Center and the overall health facility. Some examples of recent research in CAM include:

- Yoga practice for back pain
- Mind and body approaches to smoking cessation
- Spinal manipulation for chronic back pain
- Fish oil effects on immunity in mice
- Acupuncture for IVF success
- Hypnosis to treat postmenopausal hot flashes
- Brain effects of meditation
- Melatonin supplements for sleep problems in people with high blood pressure
- Milk thistle extract effects on chronic hepatitis C.

The Clinical Trials Area will include storage, dispensing, packaging, labeling and records holding for clinical trial therapies and treatments. Clinical Trials in some CAM approaches may also incorporate the performance of therapies and procedures on patients; adequate space and equipment should be allocated. The Clinical Trials facilities will be within a separate area of the main CAM Center.

Staff Areas

Offices and workstations will be required for administrative as well as clinical functions and to facilitate educational/research activities. The number of offices provided will be according to the approved staffing levels for the CAM Center. Educational areas will consist of Meeting/Tutorial Room/s; Meeting Room/s with videoconferencing facilities will provide additional capacity for educational activities.

Administration, education and staff welfare areas, including Staff Room/s, Toilets and Meeting Room/s may be shared with nearby adjacent units.

14.2.4 *Functional Relationship*

External

The CAM Center shall be located for convenient access, staff control, and security. The CAM Center should easily accessible from the Main Entry of the health facility and outpatient clinics for patient convenience. It should have ready access to a loading dock for deliveries and depending on its scope of services and Operational Policy may be adjacent to the Inpatient Pharmacy Unit.

Access points provided for the following personnel/purpose shall be carefully considered:

- Visitors and patients of the Center
- Practitioners and Center staff
- Service units for maintenance and delivery of supplies.

Internal

Internally, the CAM Center must provide secure access for delivery of supplies stores areas. Public access will be required to Reception/Counter, Waiting Areas, Counselling and Consult Areas, and subsequent Treatment and Consultation Spaces.

Restricted staff access will be required to Office/s and Operational Support Areas. Assembly, Preparation, Dispensing Areas and Manufacturing Areas will require close access to drug storage areas. Manufacturing areas may be located in a discrete, low traffic zone within the CAM Center.

14.3 Design

14.3.1 General

Primary concerns in designing the CAM Center include preventing unauthorized entry and maintaining privacy of the Center's operations.

The design of the CAM Center will be largely dependent on the scope of services and Operational Policy of the Center and the facility it is incorporated into, if relevant.

The Operational Policy must determine the degree of integration into the health facility, including access and entries of treatments and services provided by the Center into patient medical histories. For comprehensive care, best practices recommend that CAM Center based treatments and products prescribed by practitioners should be recorded into the patient clinical records and well integrated with the health facility's information technology and data systems. Facilitating this obligation will require more extensive information and communication technology capabilities within the CAM Center.

14.3.2 Environmental Considerations

Natural Light

Natural light is highly desirable within the CAM Center, as well as windows permitting outside views to create a natural ambience in the area. Windows can be frosted or treated to prevent casual viewing from any adjacent public thoroughfare while allowing natural light.

Privacy

Privacy shall be considered in patient treatment and consultation rooms and spaces and counseling areas. Staff observation of patient privacy must be well-balanced within the Center, the following features should be considered in design:

- Location of doors, windows, examination couches and furniture to ensure patient privacy and promote staff security
- Window treatment to provide patient privacy from external and internal viewing
- Confidentiality of patient discussion and patient records.

Acoustics

Patient interview and counseling rooms will require acoustic treatment to maintain privacy, other considerations include waiting areas and other noisy areas should be located away from treatment spaces and staff areas. Consultation/Treatment spaces should be acoustically treated to prevent transmission of noise to adjacent spaces.

14.3.3 Space Standards and Components

Ergonomics

Ergonomics and Occupational Safety and Health (OSH) requirements must be considered in the design process and the selection of fittings and equipment in the CAM Center to ensure optimal operation of the Center and the health and safety of the staff, patients and visitors.

Particular attention should be given to placement of equipment, heights and dimensions of counters and work areas must ensure privacy and security for patients, visitors and staff.

Refer also to Part C of these Guidelines.

Size of the Center

The size of the CAM Center will be determined by the approved Service Plan taking into consideration the needs of the health facility and other external facilities. A Schedule of Accommodation is provided for CAM Center servicing a tertiary level hospital with the capacity to undertake product manufacture onsite.

14.3.4 *Safety and Security*

The CAM Center and any external Treatment and Consultation Spaces must be secured to prevent unauthorized access through doors, windows, wall and ceilings. A security intrusion detector alarm should be fitted to monitor the Center 24-hours a day.

Security measures for consideration will include:

- Electronic door controls and alarms to perimeter doors
- Movement sensors
- Duress alarms at Center counter/reception and in treatment/consultation spaces
- Solid ceilings to prevent access.

14.3.5 *Finishes*

Finishes including fabrics, floors, walls and ceilings should be non-institutional as far as possible and promote a calming atmosphere. The following factors should be considered when selecting finishes:

- Purpose of the rooms
- Aesthetic appearance
- Acoustic properties
- Durability
- Ease of cleaning and infection control
- Fire safety
- Movement of equipment.

Refer also to Part C of these Guidelines.

14.3.6 *Fixtures and Fittings*

Equipment, furniture and fittings should be selected and installed to be safe, robust and suitable for heavy usage.

Refer also to Part C of these Guidelines.

14.3.7 *Building Services Requirements*

Heating, Ventilation, Air-Conditioning (HVAC)

All ingredients and product storage areas require temperature and humidity controls; internal room temperature shall be kept below 25°C for optimal storage unless otherwise stated.

Communications

Information technology/communications systems should provide for:

- Sufficient data and power outlets for computers and laptops
- Electronic records and computerized ordering systems
- Video-conferencing/tele-medicine in Meeting Room/s.

14.3.8 *Infection Control*

It is recommended that handwashing facilities are provided as follows:

- In each area where ingredients/products are handled including Preparation Room/s, Assembly/Dispensing Areas and Manufacturing Area
- In support areas.

All hand basins in the CAM Center should permit clinical handwashing with hands-free activation; taps may be wall -mounted, lever operated or sensor operated. Hand basins in non-clinical areas should permit routine hand washing and taps may be basin -mounted and lever operated. Hand basins should include dispensers for soap, antiseptic soap and paper towels.

The quantity and ratio of hand basins to work areas will be determined by the size of the individual areas, the operating policies and standard guidelines relating to the Center's services.

Refer also to Part D of these Guidelines.

14.4 Components of the Unit

The CAM Center will contain Standard Components to comply with details described in these Guidelines. Refer also to Standard Components Room Data Sheets and Room Layout Sheets.

14.5 Schedule of Accommodation

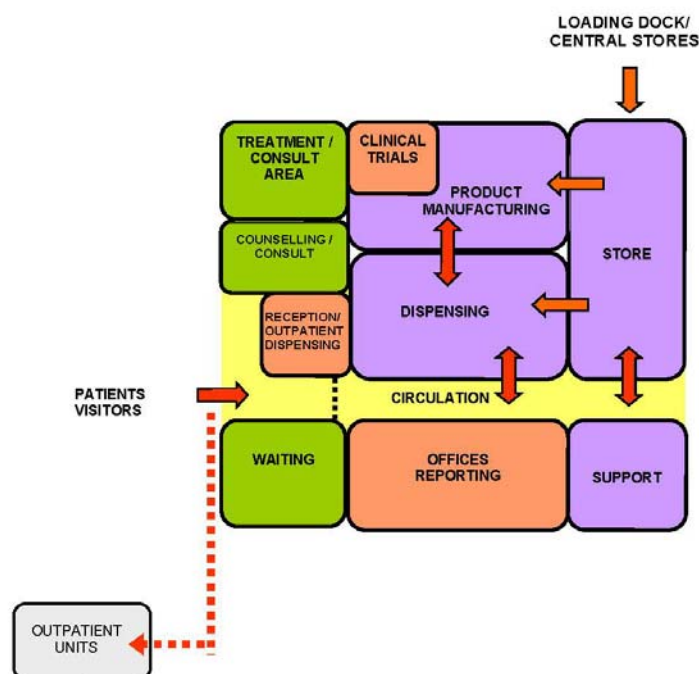
Typical Complementary and Alternative Medicine Unit at levels 4 to 6

| ROOM/SPACE | Standard Component | Level 4 Qty x m² | | | Level 5 Qty x m² | | | Level 6 Qty x m² | | | Remarks |
|--------------------------------|-------------------------|------------------|---|-----|------------------|---|-----|------------------|---|-----|-----------------------------------------------------------------|
| Public Areas | | | | | | | | | | | |
| Counter | CAM-CO-SJ | 1 | x | 9 | 1 | x | 9 | 1 | x | 20 | |
| Meeting Room – Small | MEET-9-SJ | 1 | x | 9 | 1 | x | 9 | 1 | x | 9 | Interview function, small meetings |
| Staff Areas | | | | | | | | | | | |
| Office – Single Person | OFF-9-SJ OFF-12-SJ | 1 | x | 9 | 1 | x | 12 | 1 | x | 12 | Director |
| Office – Workstation | OFF-WS-SJ | 2 | x | 5.5 | 4 | x | 5.5 | 6 | x | 5.5 | Qty depends on staffing |
| Assembly/Preparation | ASPR-20-SJ | 1 | x | 10 | 1 | x | 20 | 1 | x | 30 | |
| Bay – Handwashing, Type B | BHWS-B-SJ | 3 | x | 1 | 4 | x | 1 | 5 | x | 1 | Unit entrance and corridor recesses, as required. |
| Cleaner's Room | CLRM-5-SJ | 1 | x | 5 | 1 | x | 5 | 1 | x | 5 | Include cupboard for dry goods |
| Cool Room | CORM-SJ | | | | 2 | x | 10 | 2 | x | 10 | Optional, or refrigerators and freezers |
| Clinical Trials | | | | | 1 | x | 12 | 1 | x | 12 | Optional |
| Manufacture Room – non-sterile | PREP-SJ | 1 | x | 18 | 2 | x | 12 | 3 | X | 12 | Based on 3m² per person |
| Store – Bulk | STBK-20-SJ | 1 | x | 40 | 1 | x | 100 | 1 | x | 150 | May include pallets |
| Store – Files | STFS-8-SJ | 1 | x | 8 | 1 | x | 10 | 1 | x | 20 | Collocate with Ward Clerk |
| Store – General | STGN-6-SJ | 1 | x | 6 | 1 | x | 8 | 1 | x | 10 | Size in accordance with service demand and operational policies |
| Store – Ingredients | STBK-5-SJ STBK-10-SJ | 1 | x | 5 | 1 | x | 10 | 1 | x | 10 | |
| Store – Photocopy/Stationery | STPS-8-SJ | 1 | x | 8 | 1 | x | 8 | 1 | x | 8 | Collocate with Clerk |
| Store – Refrigeration | STRF-8-SJ | 1 | x | 6 | 1 | x | 6 | 1 | x | 6 | Bay with fridges |
| Meeting Room – Large | MEET-15-SJ | 1 | x | 15 | 1 | x | 20 | 1 | x | 25 | |
| Property Bay – Staff | PROP-3-SJ | 2 | x | 2 | 3 | x | 3 | 4 | x | 3 | Number of lockers depends on staff complement per shift |
| Staff Room | SRM-15-SJ | 2 | x | 15 | 2 | x | 20 | 2 | x | 20 | Unit-specific space, with beverage bay |
| Toilet – Staff | WCST-SJ | 2 | x | 3 | 4 | x | 3 | 4 | x | 3 | |
| Shared Areas | | | | | | | | | | | |
| Waiting | WAIT-SUB-I | 2 | x | 5 | 2 | x | 10 | 2 | x | 10 | Separate male/female areas |
| Treatment Room/Spaces | TRMT-SJ | 1 | x | 14 | 1 | x | 14 | 1 | x | 14 | For specialist units, or shared; Depends on operational policy |
| Net Department Total | | 198.5 | | | 394.0 | | | 509.0 | | | |
| Circulation % | | 25 | | | 25 | | | 25 | | | |
| Grand Total | | 248.1 | | | 492.5 | | | 636.3 | | | |

Notes:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the FPU
- Rooms indicated in the schedule reflect the typical arrangement according to the Role Delineation
- Exact requirements for room quantities and sizes will reflect Key Planning Units identified in the Service Plan and the Operational Policies of the Unit
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit
- Office areas are to be provided according to the Unit role delineation and staffing establishment; Executives and Managers may be responsible for more than one area but should have only one office assigned within the campus
- Staff and support rooms may be shared between Functional Planning Units dependent on location and accessibility to each unit and may provide scope to reduce duplication of facilities.

14.6 Functional Relationship Diagram



The external and internal functional relationships are demonstrated in the diagram above, including:

- Entry for patients and visitors directly from public corridor
- Access to key clinical units associated with the CAM Center via staff corridor
- Entry of good via loading dock directly into stores areas
- Service access required for materials and housekeeping via service corridor.

The optimum internal relationships include the following:

- Reception and waiting areas at the entrance of the CAM Center
- Restricted access to operational areas
- Treatment and Consultation rooms located between accessible and staff-only areas
- Support rooms located on the perimeter for ease of access
- Administration and office areas easily accessible to staff.

14.7 Further Reading

- Australasian Health Facility Guidelines (Aus.). 'Part B Health Facility Briefing and Planning, Rev 4', 2012. Retrieved from website: www.healthfacilitydesign.com.au 2014
- Melbourne IVF (Aus.). 'Adoption of Complementary Therapies' 2014. Retrieved from website: <http://mivf.com.au/about-fertility/how-to-get-pregnant/complementary-therapies-for-pregnancy-2014>
- National Cancer Institute (US). 'Recommendations for use of CAM' 2014. Retrieved from website: <http://www.cancer.gov/cancertopics/cam> 2014
- National Center for Complementary and Alternative Medicine (NCCAM) (US) 2014 for general research information. Retrieved from website: <http://nccam.nih.gov/research/results> 2014
- Refer to DHA website for local licensing requirements www.dha.gov.ae and MOH website www.moh.gov.ae for local approval procedures

- The Facility Guidelines Institute (US). '*Guidelines for Design and Construction of Health Care Facilities*' 2010 Edition. Retrieved from website: www.fgiguide.com 2014.