



Practice management

Module 3a – Writing a design brief for practice buildings



While there is no one design solution to ‘fit all’, plans should reflect each practice’s unique needs and working patterns

(This module was facilitated by Dermot Folan)

THE DESIGN and layout of our working environment influences the effectiveness and efficiency of daily tasks in the practice. Work flow, movement of patients and staff through the practice, where and how equipment and fittings are used, health and safety restrictions and the location of exits and entrances are all important considerations.

Other issues which need to be incorporated into the design brief include: clinical, administrative and patient waiting areas and the interplay between them; private spaces; rest areas; catering; educational activity; meeting space and protection from interruption.

Allowance also needs to be made for potential future expansion, for example ancillary services like physiotherapy, counselling or an enlarged practice team.

This module looks at the main factors the GP must consider in planning for premises design and for the preparation of a design brief for new practice buildings or redesign of an existing practice. Not all factors apply to every practice/project, however the aim is the same in all cases – to achieve good design. The architect/designer needs to have a clear understanding of how a general practice operates and the working pattern of all practice personnel. The objectives of good design may cost money but poor design will always incur costs, often substantial in the longer term.

This module outlines the critical design information for each of the functional areas within the building – taking into account practice services, patient profile, location, physical and financial constraints.

The site

Special planning requirements need to be established from the outset in choosing the best site, apart from site costs, local authority plans, zoning regulations, legal requirements and restrictions, the level of parking provision and the availability of mains services. Consideration should also be given to the potential for integration of practice premises within wider primary care/commercial joint developments like new supermarkets, where facilities like parking or general land requirements are shared.

Access is critical. Pedestrian access and proximity to public transport are key issues. Access to the practice should be convenient and direct. Where possible steps and

ramps should be avoided and all routes clearly illuminated. Car parking provision must provide space for disabled people close to the main entrance and reserved parking for essential staff near to the entrances. At the design stage consideration should be given to the movement of service vehicles, including refuse and delivery vehicles, as well as emergency services.

Costings and site location are obviously key issues in any building plan but are outside the scope of this module.

Exterior of building

The exterior of the building should indicate its function, making it welcoming and attractive to all users. The choice of external materials should allow the building to blend sympathetically with its surroundings, while still promoting itself as a medical practice. It should be constructed from high quality ecologically friendly, durable materials.

Materials must allow for ease and cost effectiveness of maintenance and ease of access for repair/replacement. Attractive and easily read signage should advertise the surgery and provide other information about consultation times, after hours contact information and information on the GPs and ancillary services/staff.

Signage may require planning permission depending on scale and location and should conform to Medical Council guidelines.

Security is also a consideration for entry and exit points, with clear well-illuminated main entry and exit access for practice staff opening and closing the surgery and operating security systems. These should open onto public areas to improve security and minimise risk of criminal activity.

Allowing for a separate staff entrance which avoids patient waiting areas should, where possible, be incorporated in the plan. This will in addition allow the entry/exit/escort of, for example, distressed patients without using the main entrance.

Practice premises comprise three main zones or functional spaces: clinical, administrative and patient areas. The specific needs of each group/function needs to be incorporated into the design brief and it is the grouping and interplay of these spaces which is pivotal to the effective working and quality of surgery design.

Patient areas

Patient reception, waiting and way-finding/circulation in the premises, privacy, confidentiality, comfort and security need to be appropriately reflected in the design.

Waiting areas

Patients are not a homogeneous group – layout and design must reflect the needs of children, teenagers, adults and the elderly and others with special needs. Patients may have anxiety, embarrassment, confusion, physical and psychological effects relating to their health status, all of which influence how they respond to the environment even if present only for a short interval. Design and interior environment will influence how patients behave and also their perception of the practice services.

Careful consideration must be given to pattern of movement from entry to reception desk, to waiting room, progress to and from clinical rooms, location of toilets and entry to and exit from the building.

Main waiting area

Size and layout depend on the number of consulting and treatment rooms, timetable and occupancy of clinical rooms, age profile and social mix of practice population, number of accompanying people, and the efficiency of the booking system. A practice servicing four patients an hour on an appointment basis will need less waiting space than a busy clinic.

However, waiting space requirements are typically underestimated. As a guide the number of seats provided should be three times the peak number of patients per hour, allowing 1m² per seat as a minimum. For example in one practice a ratio of 24 (seats):4 (treating clinicians) is provided. In calculating space sizes, a dedicated space for wheelchair patients should be accommodated.

With regard to seating, laying out rows of seats should be avoided unless for fast turnaround such as phlebotomy. Clusters of seats with armrests are preferable. Ideally waiting area seating should allow the creation of clear areas for multifunctional use of this space.

Patients need to have sight of reception (and vice versa) and layout needs to allow for the method of calling patients to clinical areas used. Waiting areas should be comfortable, attractive and have a high standard of design. Where possible they should have natural lighting and outside views depending on location.

Consideration should be given to facilitating background music, TV and video and other installations, eg. fish tank, notice boards, visual display/calling systems, water dispensers and waste bins. Waiting area design should facilitate provision of health information and accommodate storage and dispensing of health literature, preferably shelf/wall-mounted. The waiting area must be conducive to the creation of a relaxed atmosphere where patients perceive their needs are being attended to and positively influence their perception of waiting time.

The waiting area should be directly accessible from the main reception area and routes from the waiting areas to consultation/treatment areas should be as short/direct as possible with a simple circulation.

Key regulations for practice buildings

- (A) Building Regulations 1997
- (B) BS 5588: Fire Precautions in the Design, Construction and Use of Buildings
- (C) Buildings for Everyone: Access and use for all the citizens. NRB 1998.
- (D) The Safety, Health and Welfare at Work Act, 1989 Part III and the related Second, Third and Fourth Schedules of the Safety, Health and Welfare at Work (General Application) Regulations 1993

Waiting areas should be capable of being closed off from main consultation spaces and administration routes, facilitating practitioner and staff movement without passing through areas used by patients.

It is an important element of the design to ensure that any divisions of waiting spaces do not result in secluded corners with lack of supervision from reception areas. Hardwearing finishes are a requirement but these should be both comforting and stimulating for patients.

Good ventilation of waiting areas is essential to minimise cross infection. Good levels of lighting and focused lighting for reading/writing is also needed. High levels of illumination and glare should be avoided. Use of background music will improve acoustic privacy.

There may be a need for sub-waiting areas, however these should not be placed in corridors or directly outside consulting or treatment rooms if this compromises privacy and confidentiality.

Where space allows, a separate reception/interview room or protected area should be considered for confidential discussions, access by distressed patients etc.

The waiting space needs to accommodate an area for children, it needs to be located away from entrances, stairs and reception desks – designing it as a cul-de-sac off a circulation route may be advantageous. This area should be appropriately furnished with toys, low seating etc. and be visible from main reception area.

Reception area

Any design plan needs to consider the different functions of the reception area – both public and private sides of the space – as the focal point for registering, greeting patients and other visitors. The point from which activity can be monitored by reception staff (observing entrances, waiting area, stairs, entrances to toilets). It is the point where new appointments are made, fees paid, and is a delivery and collection point (repeat prescriptions, courier deliveries, pathology samples etc). Reception is the key security point for the building and the location for guidance and direction for accessing all services within the building, and a meeting point for staff.

Ideally the reception area should not open directly onto waiting area itself to avoid compromising confidentiality of patients at reception desk. The reception desk should be purpose made, be welcoming, rather than adversarial and avoid glass screens. Reception staff security is paramount, eg. by having a raised console at the front.

The desk must also allow for patients and others to complete forms and other transactions at the desk with the receptionist. Lighting levels should be high and focused on the desk, computer screens should be angled so that they are not visible to the public.

Desk design must allow for it to be closed off on staff side, eg. roller shutters. Adequate power, telephone, data points and panic buttons need to be planned for. As the focal point of the building the reception area may house alarm panels for fire detection, door entry alarms, panic alarm systems or entry phone panels.

Ideally the design plan should allow for all personnel to access reception area (staff side) without entering patient waiting areas.

The reception area must be large enough to accommodate a full complement of staff during normal working hours and convenient enough to be manageable by one person at other times. Reception layout and fittings should reduce to a minimum the distance staff need to move in their work. Therefore telephone switches, computers and appointment books need to be located within reach and at desk levels that don't necessitate bending.

Administration/management areas

It may be logical to locate administration work spaces adjacent to reception, however there needs to be adequate visual and acoustic protection from public areas. As a guide allow for 5-10m² per main workstation.

Unless the practice is fully computerised, medical record storage needs to be provided for, either with shelving or container storage. This needs to be fitted to allow for good access for filing and retrieval of records. Wall space providing approximately 250mm per 100 records or 1.4m² per 1,000 patients with A4 size records.

Office space should be designed to economise movement and effort for users. Open shelving is easier and more flexible than filing cabinets, but there will need to be fire-proof storage for cash, computer back-up tapes and other essential items.

Common room

Where space allows a common room located away from the clinical and patient areas will have advantages for GPs and staff, providing refreshment and catering. It can also have flexible uses as meeting/teaching/library rooms. This should be fitted out for flexible, multiple use.

Clinical areas

Ideally clinical areas (ie. consulting rooms, practice nurse room and treatment rooms) should be clustered in a distinct area of the practice.

Consulting rooms (minimum 3.6m x 4.9m)

These are the locations from which the core services of the practice are provided and must be designed specifically for the needs of the doctor/clinician and the patient. These rooms must have solid partitions providing acoustic privacy. For audiology services it is important to have a completely sound proofed area.

Data sheet template for room design/fittings

- **Function of room** – confidential consultation, treatment and examination, deskwork
- **Number of personnel** – maximum number of staff, patients, visitors
- **Hours of operation**
- **Fitting and equipment** – inclusive of fixed and loose equipment
- **Floor/Wall finishes/Ceilings**
- **Skirting types**
- **Door type** – must open inwards, door locking mechanisms can be overridden/keyless
- **Window type**
- **Sanitary ware** details
- **Heating and ventilation**
- **Piped and ducted services** if applicable
- **Wired services** – power, telephone, CAT/data, radio, TV, emergency alarms, fire detection and alarm
- **Noise** – acceptable sound reduction and noise levels
- **Safety** – accessible surfaces and equipment

The room design should create a pleasant and efficient working environment reflecting the GP's consultation style and working patterns. Flexibility is important to cope with desk consultations, family consultations and other variations. Size depends on whether a combined consulting and examination room is intended.

A rectangular room approximately 4m x 5m or larger where the room is a combined consultation/examination/treatment area (room needs to be long enough for vision testing). The room needs to allow for a partition or curtain and should have natural lighting for diagnostic/examination purposes.

The design of the room should take into account the pattern of work, how patients enter/leave the room, seating arrangements (including treatment couch dimensions) making it as reassuring as possible. Attention must be given to way-finding to the clinical areas/consulting rooms. This should be clear and as short as possible from waiting areas.

Consulting rooms should be visually and acoustically protected from waiting areas (note door openings) and patients should be able to reach reception without going through the waiting area after consultation.

The siting of services such as plumbing, power, telephone, data points as for all other rooms, needs careful consideration. The plumbing of all rooms with potential clinical use is recommended even if this use is not initially anticipated.

Patient toilet facilities should be adjacent to consulting/treatment rooms and accessible from reception/waiting areas. Identical layouts and fittings for all consulting rooms give flexibility of use by clinical users.

Practice nurse room

The practice nurse may use a standard consulting room fitted to her requirements.

Treatment rooms (minimum 4m x 5m)

The treatment room needs to accommodate the different working patterns of both the GP and the practice nurse. The use of treatment spaces can be a complex activity varying

Factors to address in finalising the design brief

Building requirements:

- Accommodation requirements: number of consultancy/treatment rooms, number of patients
- Site constraints – inner city/town, suburban, greenfield
- Building constraints – existing, new-build
- Building fabric: sound proofing/confidentiality/privacy
- Position of doors
- Lighting
- Safety and security: (money, drugs, prescription pads, ledger files, medical records) – personal safety of staff and of patients
- Floor levels: wheelchair and disabled access, prevention of accidents
- Circulation/way-finding (use of hand rails) and workflow/movement between rooms and each of the distinct spaces within the building

- Storage: medical files, paper, supplies, clinical equipment, hazardous waste/materials, lock-up facilities
- Computers and IT – cabling, power, data points for computers and ancillary IT equipment
- Communications systems
- Design implications for telephone and communications equipment
- Wheelchair and trolley/stretchers access to all areas of the building needs careful consideration.

Maintenance:

- Mechanical – air conditioning
- Plumbing and heating
- Security – lighting, alarm system, personal safety of staff and patients
- Prevention of accidents

on a number of different levels, depending on whether the procedure is: planned/unplanned, fast (phlebotomy), slow (treatment of leg ulcers, gynaecological investigations), throughput, 'clean' or 'dirty'. Some minor surgical procedures require a more hygienic environment/specialised treatment space.

Treatment rooms should also be accessible to other clinical rooms. Design must take into account work surfaces, location of equipment (eg. examination couch approachable from both sides), lighting and storage of materials (eg. locked storage for hazardous equipment and drugs), position of fixed and moveable fittings and equipment.

Wall mounting of equipment (eg. sphygmomanometer, sharps box, nebuliser, oxygen, audioscope), and examination lights all need to be accommodated. Child safe shelving, ceiling mounted curtain rails, floor and wall materials suitable for maintenance and disinfection also need to be part of the brief. Washing/disinfection – elbow tap wash basins, clean/dirty sinks facilities and medical waste disposal have also to be provided for.

Treatment rooms need to be multipurpose areas, from care of emergencies and minor surgery to procedures like diathermy, ECGs, spirometry, nebuliser etc.

Size is a function of the objectives and needs of a practice but should be large enough to accommodate a wheelchair or stretcher and long enough to test distant vision with an eye chart.

Where possible treatment rooms should have direct access to the outside of the building. Layout needs to accommodate preparation space, sterilisers, autoclaves, dressings, instruments, fixed and mobile storage units, drugs and specimens. Location of doors and door swings should ensure privacy within these rooms without impeding clinicians.

Toilet facilities

Separate toilet facilities for patients/public/staff are needed and must include at least one disabled toilet. Consider separation of male/female, the general rule is to provide one cubicle per 10/12 staff/patients and allow for

baby changing facilities. Door swings need to comply with current building regulation standards.

Toilets used for the provision of samples need to be suitably equipped and located near to clinical areas and away from waiting areas.

Adequate ventilation, natural and mechanical, appropriate for the levels of attendance, usage and work activity, including elimination of odours from disinfectants, clinical waste etc. is a must.

Circulation

As well as focusing on the individual spaces in the design, attention must be given to all circulations and workflows of people in the building, reflecting the specific patterns of usage.

As GPs provide a personal service of care to the patient in a unique way, there is probably no one design solution and plans will, of necessity, have to reflect each practice's unique needs and working patterns.

However, if the elements of good design are understood and if the project is approached in a systematic and planned manner, it is more likely to result in a practice premises that is right for the providers of care, for the recipients of service and one which will be adaptable to the changing environment in which general practice operates.

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Acknowledgements:

1. Dr Madeline McCarthy, Dun Laoghaire
2. Dr John Casey, Ardfert, Co Kerry
3. Mr Noel O'Dwyer, O'Dwyer Architects, Dublin