



Various ASC Design Development Comments

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1. Swing. A simple design technique that adds a lot of flexibility to an ASC is what we call a swing operating or procedure room. For example gastroenterology and pain management surgeons do not want to deal with the sterility issues associated with a full fledged Class "C" operating room. As these cases are non-sterile in nature, treating them as sterile cases



only slows down the surgeons, staffs and patients throughput process.

Accessibility to the operating room should therefore not be off of the sterile corridor, but instead directly from the prep/recovery area. This can easily be accomplished in a multi-specialty ASC by simply

placing the operating room between the prep & recovery area and the sterile corridor, not on the other side of the sterile corridor as is often designed. Then by placing doors into the operating room from both the sterile and non-sterile sides the design can allow the operating room to "swing" back & forth depending on the cases that are being performed and what access door remains unlocked. Of course this transition does not occur per case, but instead per surgical block period. For instance an ophthalmologist may use the operating room in the morning as a sterile environment with the operating room "swinging" in the afternoon to be used by a gastroenterologist as a non-sterile environment. This design technique takes no additional space allowing your ASC to be much more flexible without a surcharge – a win-win situation.



2. Availability. Although owning real estate, including operating & procedure rooms, is usually less expensive than leasing it (nobody does anything for free anymore), that option is not always available to our

clients. About 35% of the ASC's we have designed are in existing leased buildings. The sheer availability of the space is key, even if it costs a little more to produce. Although leasing space is generally more expensive it impacts a relatively small component of the ASC's total overhead; rent



usually comprises only 10-15% of an ASC's total overhead. Therefore a 5% increase in rental costs will affect the ASC's overall overhead by less than 1%; not a big impact on your ASC's financial viability. That being said it should be a major

design consideration to allow for future expansion of your ASC when the initial design is done. When doing so make sure to consider the ancillary spaces (waiting, reception, prep/recovery, storage...) needed to facilitate an additional operating or procedure room. This is often much easier to accomplish with a new building versus an existing one.

3. Size. Most multi-specialty ASC's require more space to function properly than do their single-specialty counterparts. A single-specialty ASC can be designed to handle the specific needs of a certain caseload. Therefore in most situations (especially with relatively minor cases like gastroenterology, ophthalmology or pain management) a single-specialty ASC can function properly with a minimum amount of space. Multi-specialty ASC's on the other hand require more waiting spaces (due to the slower patient turnover), staff dressing area (due to the increase in the number of staff & surgeons), recovery stations (due to the more acute patients), general storage (due to specialized supplies/packs), sterilization (due to the use of multiple sterilization techniques), equipment storage (due to specialized case carts & equipment) and even the operating/procedure rooms themselves (due to booms/equipment/staff and even robotic technology). That being said Bariatric, Otolaryngology or Orthopedic single-specialty ASC's may be larger than some multi-specialty ASC's. This is because these specialties deal with the most acute patients or have patients with a relatively short surgery & long recovery need. In a nut shell a single-specialty ASC with the same number of operating/procedure rooms than a multi-specialty ASC can be up to 25% smaller and still maintain its efficiency.



4. Distance. The key to winning the efficiency game is to minimize travel distances. The fewer steps staff & surgeons need to take to accomplish

their job the more efficient and financially viable your ASC will be. Staffing costs, at 25-35% of an ASC's overhead (facility costs are just 10-15%), is



by far the most design controllable overhead component. You are much better off maximizing staff & surgeon efficiency by minimizing their travel distances than you are by minimizing the facility size itself in order to save costs. Don't cut off your nose to spite your face. The best money you can spend when developing your ASC is to hire a highly experienced (having

designed 250 NOT 25 ASC's) architect that can help you successfully accomplish this goal.

5. Green. "Green" architecture is all the rage right now and for good reason. Considering the initial & long-term environmental quality and energy & water conservation of your site & buildings design & materials is extremely important to the sustainability of our society. Drawing on distinguished sources such as the Green Healthcare Construction Guidance Statement by the American Society for Healthcare Engineering (ASHE), the Leadership in Energy & Environmental Design (LEED) Green Building Rating System by the U.S. Green Building Council, the Energy Star Rating System by the U.S. Environmental Protection Agency (EPA) and the Environmental Performance System by the Center for Health Design/International Organization for Standardization (ISO); the "Green Guide for Health Care" has defined a comprehensive, voluntary self-certification system for the design, construction and operation of high-performance healthcare buildings. This quantifiable sustainable-design tool kit can be referenced at www.gghc.org. It is the first green-building best-practices guide created specifically for the healthcare industry and should be followed whenever possible. The principles contained in this guide can be implemented with a minimal increase (5-10%) in initial building cost over traditional, non-green methods. Although it probably won't get additional patients to come to your ASC, the PR and long-term savings are worth the extra price.

6. Larger. With the increase in technology and surgical complexity comes the need for larger operating & procedure rooms. What has traditionally been considered an inpatient case is all of the sudden an outpatient case. I even recently read an article on minimally invasive outpatient total hip arthroplasty. The minimum requirement for a Class C operating room is currently 400 square feet per the American Institute of Architects (AIA) guidelines, typically designed as a 20' by 20' room. This is just too small



for today's complex environment. With all the anesthesia, equipment, lighting & monitoring booms as well as specialty equipment towers and even robotics a 22' by 22' room is much more appropriate, with 25' by 25' room not being out of the question.

7. The best solution to this issue is to use an experienced independent equipment planner to select the equipment that will be used throughout your ASC. This process should be completed in conjunction with, not after, the early stages of the design process to assure a proper integration into the layout. The architects/engineers will simply use the selected equipments "cut sheets" to allow for a



8. Knowledge. A knowledgeable architectural firm must have multiple experiences with all surgical specialty ASC types; designing an ophthalmic ASC doesn't make them an expert in designing an orthopedic ASC or vice versa – in fact it doesn't make them an expert at all. A truly experienced architectural firm has helped develop 250+ ASC's not 1, 5 or even 25. Honestly the only way to learn what truly doesn't work, in order to stay on the cutting edge, is to try it and fail. Without hundreds of ASC projects behind them an architectural firm simply doesn't have a big enough learning curve. In addition don't rely solely on client testimonials; a satisfied client may not even know what they are missing and are perfectly happy with a poorly designed ASC.
9. Inconsistency. With ever changing United States Department of Health and Human Services guidelines, American Institute of Architects Academy of Architecture for Health guidelines, State Health Department requirements and local Building Code requirements; it is very difficult to stay current on what design/engineering requirements will be enforced when licensing & certifying your ASC. Having the experience to gather these requirements is essential to a successful architectural firm; missing the mark can be disastrous. Clinical expertise is also very important. Being able to talk through your operational policies with inconsistent state & city officials in order to allow an ASC to use cutting edge design techniques that may be new to the officials is critical.





10. Viability. If your ASC is not financially viable it does not matter how well designed or constructed it is. You should without a doubt have an experienced development firm prepare a full feasibility study prior to and in conjunction with developing your ASC. Without this tool you could be setting your ASC up for certain failure.



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