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MedTech Suppliers: Leverage Cost Effectiveness Now

As this is written the U.S. Congress is wrestling with health care/insurance reform. Predicting the detailed outcome is a fool's errand. But we can be assured of one result: healthcare cost effectiveness will command much greater attention for years, and decades, to come -- either because Congress will have failed to adequately constrain these costs or our esteemed legislators will have crafted a revised system that does in fact impose important cost constraints. Either way, if you supply medical products you will need to pay more attention to the "societal costs" associated with use of those products. You need to understand your product's cost footprint now and use that information defensively or -- even better -- offensively to protect or enhance your competitive position.

Comparative Effectiveness = Performance + Cost

Make no mistake, this equation will prevail despite denials by some that cost will not influence clinical decisions or reimbursement formulas. As a supplier of a medical product you should characterize the impact of your product on both measures: clinical performance and societal cost. Furthermore, you need to conduct this assessment before your competitor does it for you. While assessing these two measures is important for an existing product, it is even more important for a contemplated new product; your assessment may become the dominant factor in your decision whether or not to introduce a new product at all.

Let's explore this assessment process as applied to a planned *new product*. Characterizing such a product's clinical performance is straightforward and well established. It involves answering questions like these:

- Who will use the product and for precisely what purpose?
- Will it improve clinical outcomes?
- Who will benefit? Patient? Practitioner? Hospital? Society?
- Is the procedural transition manageable? (Can you overcome "medical momentum"?)
- Can you reduce medical error and/or reduce incorrect diagnoses?

Characterizing your new product's *economic performance* is likely to be less familiar and more challenging. It will involve answering questions like these:

- What are the real net costs to the hospital, practitioner, insurer, patient and society? Are any of these costs less than the prevailing accepted alternatives?
- Are your cost models based upon real experiences in clinical practice and supported by established administrative accounting models? Can your projections of costs survive customer scrutiny?
- What changes in insurer reimbursement policies are in store? Could your new product actually influence such changes in a favorable way?

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Innovative Products Yield Greater Opportunity

Given this new emphasis on cost effectiveness, it's appropriate to redefine what we mean by an "innovative" product as one which provides both better clinical outcomes and better economic outcomes. Such products will be in greater demand and will command premium pricing offset by their lower costs of use. Their commercial opportunities and supplier impacts are likely to be exceptional and strategically important. They will encounter little risk of reduced coverage or reimbursement amounts, and even more generous reimbursements may be achievable. On the other hand, the clinical and economics questions will be difficult to answer authoritatively owing to a lack of clinical experience, so rigorous studies may be required.

In contrast a "me too" product will incur significant risks of reduced coverage or reimbursement amount if an "innovative" alternative becomes available. And its commercial opportunity and supplier impact are likely to be marginal (albeit tactically important). But the clinical and economics questions can be answered rather easily, as parity with prevailing methods is likely. In almost every case introduction of the innovative product will be worth the added effort of characterizing its clinical and economic outcomes.

Opportunities for Healthcare Cost Reduction

There are myriad opportunities to affect costs in favorable ways. Let's examine these opportunities in the context of positioning your new product against an established, accepted clinical method. Consider the following five categories of opportunities -- putting aside for now the obvious tactic of reducing the price of your product, which is seldom an attractive option. Consider these possibilities as you examine the overall economic impact of your product's use.

Avoidance of Adverse Outcomes

Adverse outcomes are often very expensive and increasingly non-reimbursable; their avoidance deserves great attention from providers and hospital administrators. Consider, for example, avoiding complications or medical errors, eliminating unnecessary procedures, and reducing staff accidents and injuries. Of course adverse outcomes also create liability exposure and the associated costs of legal representation and litigation.

Procedural Efficiency

Staff costs are also highly visible to providers and administrators. Greater efficiency of staff utilization saves and effectively makes money. Consider, for example, reduced hospital length of stay, reduced operating-room (OR) time, reduced physician involvement in the delivery of care, ease of product use, rapid data recording and access, and automated insurance coding and claims filing.

Economic Sites of Care

It is widely acknowledged that "pushing down" care to less expensive sites is a worthy goal, as long as the quality of care is not compromised. Favorable evidence abounds. Consider, for example, avoidance of ICU or ED admission and relocating care to sub-acute facilities, physician offices, or patient homes. These alternatives offer potential for major savings in societal costs.

Rapid Diagnosis and Treatment

Quicker application of effective care obviously saves money besides reducing patient risk and anxiety. Consider, for example, enhanced diagnostic performance, quicker definitive diagnoses, anticipation and earlier intervention, and enhanced therapeutic efficacy. These approaches are already widely appreciated since much of medical product and procedural innovation is focused on rapid diagnosis and effective treatment.

Prevention

Obviously the prevention of disease and symptom manifestation carries a remarkable opportunity for cost reduction. Prevention is one of the most talked-about features of evolving U.S. health care/insurance reform. Consider, for example, viable disease management programs, vaccination initiatives, home-based physiological monitoring, and effective patient wellness programs. But prevention is hard to do, as it requires extraordinary patient participation and compliance along with funding mechanisms that have so far proved elusive.

The Hard Part: Getting the Data

So, you "just know" your new product offers superior clinical performance and lower societal cost than the accepted alternative product or procedure. You must not only *achieve* these goals; you must *demonstrate* that achievement with hard data. Everyone knows how to demonstrate clinical performance. Clinicians and regulatory authorities have defined the path to follow for decades. But demonstrating cost effectiveness is new territory for most.

You need to devise a process that reveals an economic comparison between your new method/product and the status quo -- a process adapted to your particular scenario. Here's a stepwise approach that may be helpful:

- Select the *methods* to be compared and the relevant site(s) of care, whether these are procedures, diagnostics or therapies.
- Choose a target *perspective* that is aligned with your goal. Are you trying to convince a practitioner, an institution, an insurer, or society as a whole?
- Identify the relevant *monetary elements* that are different between your method and the accepted alternative.
- *Quantify* the monetary differences using the most appropriate means, e.g. published data, anecdotal evidence, primary research, or a small clinical trial.
- Organize and *report* your findings in a compelling way. Focus on the greatest, most influential differences.

An example might be helpful. Let's compare existing laparoscopic abdominal surgery and its associated surgical tools to a new method of single-port (umbilical) access surgery and its associated new toolset. The two *methods* are the two different surgical procedures to achieve the same therapy (e.g. removing a diseased gall bladder). Let's assume that the practitioner (in this case a surgeon) is "sold" on this new procedure but the hospital administration is appropriately skeptical because the new toolset is more expensive; so our *perspective* should be that of the institution.

Now, what are the *monetary elements* that exhibit differences? After a cursory analysis of these two procedures we might conclude that surgical complications will be reduced in number, fewer OR staff will be required, pain and associated medication use will be lessened, and fewer medical errors will occur. On the other hand, OR time will be somewhat greater owing to the surgical learning curve, and the cost of supplies will be greater. From an economic perspective this could be a close call.

Some rigorous research will allow us to *quantify* the cost differences. In this case the best data would result from detailed observations of both methods and pointed inquiries of OR administrators and surgeons experienced in both laparoscopic techniques. Upon completion of this research we would *report* its findings in a white paper or publication targeted at hospital administrators.

The quantification step is certainly the most challenging, as it requires awareness of healthcare cost structures and connections to administrative arms of customer institutions for the development of rigorous cost models. But the effort is sure to be worthwhile.

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