



Supply chains: healthcare

The procurer's tale

James Warren

In previous sections, we've looked at B Braun's products and services, what they produce and how function. We've also seen how their instrumentation fits into the cycle of events in the hospital. It's now time to take a look at how the extended supply chain is managed. And that means we need to locate B Braun in a wider perspective of healthcare and, indeed, into their own international corporate structure.

Deborah Darling

At B Braun in the UK, we are extremely fortunate that we have two very large factories and central European warehouses both operating in different parts of Germany to meet the three business needs. They have been built specifically in order to supply all of the European markets, potentially directly from warehouse to the hospital wherever they are in Europe.

Now, obviously the UK is slightly separate from that because we've got the Channel to cross and it's a slightly longer time, so, it means we do have to hold some inventory here. But because B Braun have put that investment in over the previous years to develop it, then we've been able to make great use of that, and that means they are able to work with us in terms of reducing our lead times, reducing our inventory holding, and again, we are, we have a very, very strong IT network within B Braun, very governed centrally. We are all on SAP operating environment, which means we have full visibility of each other's inventory each other's demands, everything that you'd want to share with your partner is already online to everybody and we can make full use of that.

James Warren

So, the international operation of B Braun are one factor to consider. We now turn to another important set of factors.

Ian Stockley, Northern General Hospital, Sheffield

As a consultant orthopaedic surgeon, then I have responsibility for a number of patients, both inpatients and outpatients. My working practice is that we have outpatient clinics twice a week, where we see new patients and follow ups. I then do two whole day operating sessions, and apart from that I teach junior doctors on the wards, and in theatre.

Mark Gronow, Procurement Logistics Dept, Derriford Hospital

In terms of what we get involved in within procurement, it's a very wide range of products. I think people think of a hospital in terms of it just being medical equipment and consumables perhaps. I can cover some of those as well but, you need to also remember that, within a building of this size, there are obviously things relating to stationery requirements, estates requirements, cleaning services, etc, so, it's a very wide range of commodities. In terms of managing that process, we have buyers aligned to those different commodity areas. As far as possible, we also try and link them to the major directorates within the hospital. For example we have operating directorates which would be medical, surgical, women's and children's, and diagnostics and therapies. We've also got seven services directorates as well, which would include things like human resources, cleaning, estates, facilities, etc.

James Warren

To understand how B Braun interface with these and other stakeholders, we need to follow the typical passage of an order.

Deborah Darling

It could stem from two or three areas but one of the key areas is a patient will have come in, they'll have broken their hip maybe the night before, woken up, been found at the bottom of the stairs, taken into casualty. That sort of patient would need to be operated on really within 24

hours, I think is the standard. And they, it's a very specific measure of instrument that goes into that hip that they may have broken.

So, they'll have been seen by the surgeon. The surgeon will say, 'right, I'm going to operate on this lady at nine o'clock tomorrow morning, therefore I need this, this, this and this. Therefore the hospital would look, 'do I have those in stock?' More often than not they wouldn't have that particular size. They would then telephone their order through to us with a telephone order number. We'd take that into our call centre which takes 10,000 calls a month of this nature. We would pick pack that product potentially within sort of half an hour but certainly by the close of the business day. We'd take instructions to have that delivered to the hospital before 9 am. That would be picked up by our couriers, it would be taken to the hospital, the courier would take that directly to the operating theatre involved, possibly to a named nurse or a named area of that operating theatre. They would then take that, sign for it, so we were comfortable that they'd got it when they wanted to have it. That would then be sent down to a sterilisation unit, sterilised, put with all the other instruments for that particular patient. An hour later it will be in the operating theatre ready for that nine o'clock, Mrs Jones coming in, having that hip replaced.

Generally speaking, most deliveries are quite comfortable with sort of being before nine before ten am the following day, and because we have a very sophisticated network of freight forwarders they are perfectly capable of delivering that. However, there always comes the time when you just don't quite have that one in stock here, it's due in the following day, or that distance is a little bit too far for the time scales, you know, they phone up at six o'clock at night. So, we have again within - because we use SAP which is a very sophisticated operating system, we actually have inventory placed all around the country in most of our key accounts, most of our hospital key accounts. We maintain visibility of that within our operating system, so for part ABC we can type that into our SAP system. Fair enough, it'll tell us, 'oh, you haven't got any in your Yorkshire warehouse', but it can tell you in these ten accounts you've got that precise size of instrument needed. And then we can phone up that hospital and say, 'hey, we'd like to uplift that product if that's okay with you, and send it to your neighbouring hospital'. And then we'll send again the couriers that we'll use, they'll go and pick it up from a named individual and take it to another named individual in a hospital down the road.

Mark Gronow

The main logistics issues, I think, for a hospital of this size, are making sure that the end user gets their goods and services on time every time. That's about us managing the supply base within procurement and logistics. It's about reducing that supply base in some cases. It's about looking at national sources that are available to us, such as the NHS Logistics Authority, and assessing whether, if there is a product or service available from that route, it's controlled centrally at a national level, then we need to be buying into that. If we're not going to be, it's about being exactly clear as to why we're not going to be buying into that product or service.

Deborah Darling

There are a lot of freight forwarders out there that can do a very good cheap and cheerful job. And for some elements of our business we are able to use those again, when we just want to provide a good basic reliable service of commodity items like syringes and needles, where it just has to be shipped in a clean environment, then, yes, we can take advantage of some of the more competitive rates out there. However, when we are looking at the type of environment where it has to be delivered directly to somebody's hand in an operating theatre environment, by a very specific time of day, then, no, it means our choice of freight forward, our choice of courier, really has to be sort of world standard, world benchmark standard. So we go through a very vigorous selection process. We fully test out - we blind test our couriers out, and look very closely. We visit their depots, we look very closely at the reliability of the very - the top end of the range service, the gold cream standard if you like, and that we fully test out before we'd go into a partnership agreement with them.

James Warren

Getting the right instrument into the correct hand and the right implant into the correct hip at the right time is fundamental to B Braun as a supplier.

Ian Stockley

My own particular interest is in joint replacement, that of mainly hips. And over the years we've seen, and we've read about how successful hip replacements are. As well as the positive side, there's also a negative side, because there are also lots of reports of hips going wrong very early. And although, the surgeon is the major determining factor as to why a hip replacement will go well, obviously one must look at the materials and the prosthesis you're given by the manufacturer. And I know that per annum in the UK, there's about 40,000 hip replacements are performed, and of that 40,000, probably a good 2% go wrong, and the question is why. There are many, many different replacements used and Sheffield's part of the Trent region, and in Trent alone, we know from our audit studies, there are over 30 different hips used, and me being a hip surgeon I can't name 30, I could probably do 10. But of those different hips used, there's only three in the country, which have a decent track record. The Exeter hip is one of the three hips with a long track record, but many years ago, it changed from being a very smooth shiny finish on the stem, to more of a matt finish, which seemed at the time to be the norm for most prostheses around. But what the surgeons found, partly due to close auditing of their results, was that failure rates went through the roof. So, having identified this, they then went back to a nice smooth shiny finish on the stem of the implants. And, with that, results again have improved. Now, the question, why should a surface finish on the stem make a big difference. There are many explanations but the stem sits inside a cement mantle, which itself sits within the tube of the proximal femur, and the Exeter stem is a tapered stem, and any taper has to move with load. So, when you would stand on the leg, you would load the hip, and essentially increase the radial forces, and decrease some of the other forces around the stem. A matt finish, that movement was not allow to happen, there's greater friction between the stem, and the cement, and that effect creates a significant difference in the long term survival of that prosthesis.

James Warren

As the surgeon sees it, this responsiveness of manufacturers to clinical results is a relatively new thing.

Ian Stockley

I think in the past a lot of surgeons and implant manufacturers, made anything, and the surgeon would put it in, for whatever reason, with no real science behind it. But now with people like NICE, which is the National Institute for Clinical Excellence, then one has to be more responsible for what goes into the patient. I mean, doctors in the past were sort of regarded as guys on soap boxes, they were sort of, well, they weren't stars, but people used to look up to them, and what the doctor did was accepted as the norm. And those days have gone, thank goodness, and you have to be aware of what you're doing and justify what you're doing. And I think, again with time, the trade, industry, and the surgeons, are more of a team.

James Warren

Even with close auditing and patient follow-ups, the fact remains there is still a wide choice of implants.

Ian Stockley

Obviously, on the market there are many, many different types of hip replacement, and the question is, 'why do I use type A, and my colleague uses type B?' I think all things in life, it depends on your previous experience, both as a surgeon, as a consultant surgeon, and also your time as a trainee. When you're junior and you're with somebody else and you watch what he does, you tend to use his implants when you first start, because your experience of that. You also read, go to meetings, and you know what works from the literature, and with time, you'll form your own experience. The problem with hip surgery is that a bad hip can last a short, you know, three, five, six years, but what want to know is the hips that last 10, 15, 20 years. So, experience is important, and that's only gained by you, as a surgeon, carefully following up your patients. And with a hip replacement, it's not one years or two years, it's for life.

James Warren

Whatever the clinician's preferences for implants or for instrumentation, they are not the purchasers. That's part of the procurement function.

Mark Gronow

If there's a particular requirement, for example, for instrumentation, you have to first of all consider the actual total value of that requirement. If it's below £100,000, we don't necessarily have to go through to the European Journal to place an advert in the OJEC Journal. If that is the case, the advert is placed, we get responses back, working with clinicians then, we compile a short list of the suppliers who we wish to be actually included within an official tender. If we don't have to go to the European Journal, if it's under £100,000 expenditure, we would have internal sources here in terms of knowing who the preferred suppliers would be. So, we would then compile a tender, working with, in the case of instrumentation, very closely with the clinicians, and the consultants in that, to understand the number of procedures and the type of procedures they're carrying out, to have a definitive list of the final range of instrumentations that will be required, instruments that will be required. We also would be having very close contact with the SDU unit, sterilisation and disinfectant, who clearly, not so much on the single use side, but on the reusable side of instruments, are one of the main players here.

We would then go through the tender process, we would establish the selection criteria, against which the preferred supplier would be chosen. Once the tenders come back, there will be a decision made in terms of the actual overall price of that product. We would also be considering the other added value services that that customer would be supplying to us. Could be in terms of training for example, could be in terms of the service they give to us for repairs, or re-sharpening of instruments for example. So, it isn't just about the unit cost of the product, it's about the overall cost of the product, and the service that that company is providing.

James Warren

Thus, value added services such as independent educational services provided by the supplier are clearly one of the factors that can shape purchasing decisions.

Ian Stockley

The thing about orthopaedics is, yes you can learn from the operating theatre, but you also learn, you know, multimedia, etc, etc. And courses run by companies are very good. In the past, and we all know this, they were very much biased towards their products. But, on the implant side of orthopaedics, a lot of companies now offer educational courses, not on their products, but say, on the hip, you know the failed hip. So, yes, they may talk about their products, but the main gist of the meeting is on education for young surgeons. And the companies who get a good reputation are the ones who, at the meetings, are not pushing their products. In fact, Braun for example, hold a variety of meetings throughout the year, where they bring in surgeons who they know, use a variety of different implants. B Braun as a company will get nothing from it, from increased sale of their products, but they get known, as a company that funds and supports education.

James Warren

One result of supporting your customers is the possibility of becoming a preferred or sole supplier.

Mark Gronow

We do have preferred suppliers for many of our ongoing consumables, as well as our equipment. If you take the consumables, we have a contract with B Braun Aesculap at the moment, which is a long-term ongoing agreement, where we've secured very good discount rates, based on that long-term commitment we're willing to give them. That would have been an output from a tender process that we went through two or three years ago, where we identified the common need that we're going to have within the acute unit here. If we can predict that, we're obviously willing to negotiate longer term with the supplier, through liaison with the relevant commissions, to make sure that we've got that guaranteed supply against those firm and secure discounted prices as well.

Graham Cox

We've been in partnership with B Braun for four and a half years now, and it really sort of took off when we were looking at the re-equipping of the LGI, Leeds General Infirmary, for phase one with the new theatres. That involved quite a large investment in instrumentation, and also in the containers which we wanted to actually introduce at that time.

What the contract means to us, is that we have preferential rates on the purchasing of instrumentation. So for example if one of these team leaders in theatres wants to buy some extra instrumentation or equipment, well then, as a first choice, they will have a look in the B Braun sort of inventory or catalogue of instrumentation. If it's there, well, we'll purchase it from them. If it's not, well, then we can use B Braun as being a one shop stop, and they will sort of acquire it, purchase it on our behalf, and then supply it into the trust. But the actual contract also involved educational package. So, again, we have access to all their educational courses that they might sort of put on and sponsor, either at Sheffield, or in Germany.

Ian Stockley

What a lot of companies are realising now, that, yes, it's okay supporting the surgeon as a consultant, but I'm sure, on the commercial side, if they got people much younger involved with their product, they may think, 'well, that guy's on our side, he may use our implants in the future'. They offer a travelling fellowship, to one of the boys, £1,000, the guy gets the best of itinerary and reasons for travel, and those sort of things, you see. So they're hitting people that way.

Mark Gronow

With any single supplier arrangement that we'd have, or indeed, for any major contract, we would have quarterly contract review meetings that would involve, not only the supplier and all the representatives from that supplier for that particular commodity, it would obviously involve at least one purchasing officer as well, and it would also involve any relevant clinician, who have buy-in for that contract as well. So, it's about understanding, not just that we're getting good value for money against the contract, it's also understanding the whole procurement cycle, in terms of the satisfaction that the clinicians are getting, because ultimately that's going to have a direct effect on patient care. So it's about bringing the three main parties together, the supplier, the customer, and the clinician, to ensure that we're getting overall value for money for the Trust.

James Warren

Providing that value for money is what B Braun aim to do. They're servicing their UK supply chain out of warehouses. That involves holding stock against future orders and reducing that could represent a potential saving. Although the story is not quite as simple as 'just in time'.

Deborah Darling

We have about, at any one time, 24,000 live items that we sell from this area. That's a lot of inventory to hold. You don't necessarily want to hold inventory of all of them. I think, just in the past two years, we've reduced that inventory by £6.1 million. And some of that's been through technology able to offer us but a lot more of it is having the disciplines and training of using the SAP operating system to good effect. It's working with our suppliers at reducing the lead times down, it's really looking at, well, you know what service level do we want to provide to our customers? And how quickly can we replenish that inventory? It's through use of forecasting, it's through use of good data management, so, you're not making as many errors as you were previously, therefore, you're not making as many mistakes, so you don't need as much stock to cover those mistakes as you did previously.

Some of that's very market-led in terms of how much inventory the NHS people are willing to hold, because some of it you may actually want to increase your inventory because you may have entered an agreement with an NHS hospital, they will buy from you providing you are holding their inventory for them. So, it's far more the usefulness of the inventory that you hold which is becoming increasingly important, rather than the value in its purest form. Of course, value's important, but if the value is bringing you in additional sales, then that's a valuable trade-off and that's a trade-off that's worth taking.

Mark Gronow

It's a finance dominated process by a very large extent. We're obviously working with a finite sum of money that's provided to us centrally every year. That's based on a number of factors, including the size of the hospital, and the type of acute unit that it is. And, obviously, the size of the actual potential customer base that we have, which here, as I say, is very, very large at Derriford. There are also other factors in terms of other funding that's made available. We get modernisation money sent through to us as well, periodically, throughout the year. We also have League of

Friends funding, so there are other charitable donations that come into us as well, and it's about managing all of that cost.

James Warren

With three different divisions and a host of customers placing small individual orders, B Braun perceive potential benefits from closer integration.

Deborah Darling

Now, there are a lot of synergies, particularly with the NHS customers that we have, where potentially we don't need to take it through the traditional NHS route of putting it into a depot, because we have the capability to supply direct to a ward or direct to an operating theatre, or we already are delivering directly to an operating theatre and, hey, why don't we deliver these products at the same time, which somebody else within that hospital may be ordering? We can see at a glance everywhere that that hospital or NHS Trust is ordering. They can't, all they can see is lots of different departments placing orders on us, potentially all on the same day. So, the operating system that we have, the SAP system, allows us to use management information to potentially consolidate those deliveries and ship them all in, at the same time, to the same point, and therefore share those savings between us and the customer.

James Warren

With so much of their operation dependent on the SAP operating system, you may well wonder how closely B Braun are involved with e-commerce.

Deborah Darling

Within the NHS, the e-commerce environment is one of great uncertainty, I think as it is world-wide in any industry but, the NHS is a very large establishment and I think with anything large like that, particularly when it's not the absolute number one priority, which we all know it's not in these current times, then it takes a very - it's a very slow route through. On the one side you have very standard EDI, and EDI transaction sets, which is the very basic electronic transactions coming between ourselves. And that's fine, that's working well with a lot of NHS trusts and some of the big pharmaceutical distributors. So, that's almost old hat, you would call it, but still very efficient.

When you start moving more into more web-based technologies and looking at far more dynamic management information exchange, where you're looking at 'do you have that stock? If not, when will it be coming in? Can I have a look at the pictures of it?' And those sort of e-commerce trading. That needs a lot more investment from the NHS before it can match our capabilities. So, our role within that really is to work with them, to make sure that we're equipped in whichever way the marketplace goes, and to be able to meet all the different scenarios, potentially all at the same time.

I think, on the international scale, in terms of actual practical doing some of the things that are talked about, I actually think the UK are very much in advance. There's a great temptation, I think, when you look at the US in particular, they are extremely good at selling concepts and 'look at how great we are,' however, when it comes to reality, you find very rarely that they're actually using that technology, and using it well. They're just talking a good talk, quite frequently. I think, in the UK, we're actually worse at talking the good talk, we just get on and do it. We might not have a fancy name for it all of the time, we may not call it 'vendor managed inventory' or 'continuous replenishment process', but we're doing it anyway. So, I think a lot of it in the UK, we're actually underselling some of the fantastic supply chain innovations that we do have.