

**PPN 03/21
SUPPLY CHAIN
RESILIENCE**



BSO PaLS has a targeted approach for compliance with this PPN.

BSO PaLS conducted a detailed supply chain resilience (SCR) exercise to assess and establish a starting point for the Organisation and to enable a plan of work to be developed. A project team was set up to do this and PPN 03/21 has been implemented in full -

The full portfolio of contracts were categorised and recorded on PaLS' systems as either strategic or non-strategic (and strategic contracts further rag rated as red, amber or green in terms of SCR)

All tender processes, as part of the initial strategy, require categorisation which is achieved through market engagement at the beginning of the process.

Depending on categorisation of the tender/contract, appropriate resilience measures are put in place.

Business Continuity Planning (BCP)

As part of its BCP review process BSO PaLS have recently developed a simplified electronic back-up system should its normal electronic ordering system not be available for an extended period of time for example as a result of cyber-attack. This can be activated at short notice enabling critical goods for Health & Social Care to continue to be ordered from suppliers until the problem has been resolved whilst also ensuring minimal supply chain disruption.



Supply Chain Resilience Case Studies

Medicines

Within the BSO pharmacy procurement team, supply continuity and supply chain resilience has been at the forefront of our contracts and approach to contracting for a number of years. BSO PaLS Pharmacy category currently operates a range of solutions for Trusts to access medicines via a compliant route. These solutions include a Dynamic Purchasing System (DPS), Frameworks and Contracts and caters for a range of supply routes, e.g. direct from manufacturer, via wholesaler, via homecare provider. The portfolio also includes solutions for the storage and transportation of medicines, vaccines and products required in the event of a health emergency. Throughout the delivery of the procurement programme of work, we have made a number of improvements to focus on supply chain continuity and resilience; these are outlined below:

DPS

Competitions are run 6 monthly for a range of medicinal products (typically 400 – 600 product lines per competition) with bids invited from circa 155 suppliers on the DPS. The criteria to assess tender submissions for the DPS competitions includes a number of criteria focussed on increasing supply continuity.

Case Study

5417226 Generic, Branded Generic and Proprietary Medicinal Products “Group 15” the following criteria was applied which focused primarily on supply continuity and resilience:

- Weighted score for stockholding – suppliers were awarded marks based on the number of weeks stockholding they agree to maintain per product line, up to a max of 8 weeks. This helps focus attention on and encourage, healthy stock holding levels which is critical to the successful management of medicines supply. Trusts have limited capacity for significant stock holding at hospital/ ward level and rely on the necessary stock holding offered from our contractors to help meet increasing demands and cope with fluctuating/ seasonal trends in usage.
- Weighted score for use of wholesaler – suppliers were awarded marks based on the use of a wholesaler as part of their supply distribution model. This helps provide additional stock holding capacity (over and above the stockholding of the supplier) and provides an additional layer of resilience within the supply chain.



Supply Chain Resilience Case Studies

Medicines Contd.../

- Weighted score for same working day delivery – suppliers were awarded marks based on their ability to offer same working day delivery. This helps encourage local stockholding and ensures that suppliers appointed are capable of providing a flexible service to Trusts and able to respond to trends in demand, including urgent delivery requirements.

These scores are combined with other weighted elements of the tender submission to help produce a final tender score, which is the basis for the award. Applying weighted criteria focussed on supply continuity measures helps drive the outcome of the tender towards suppliers who have more stable supply routes with the use of wholesale partners and increased stockholding, which ultimately the customers benefit from.

The DPS allows for committed contracts to be awarded against projected volumes and as a result of this commitment, suppliers are provided with the assurances to enable them to put in place the appropriate supply chain measures to ensure fulfilment of their contractual obligations throughout the term of the contract. Through the award of a contract, we secure better commitment from suppliers, protection for the Trusts in the event of a supply chain failure (with the ability to claim back any additional costs associated with an alternative supply route). The use of the DPS to award contracts has resulted in increased stability in supply routes.

As an additional measure to assist awarded suppliers with forecasting and supply management, PaLS (with the assistance of the Regional Pharmacy Procurement Service) provide updated usage to suppliers at various points within the contract life cycle. This enables suppliers to be formally alerted to changes in demand, which enables their manufacturing capacity within their supply chain to be adjusted accordingly. This helps prevent over-production of medicines where there is not the necessary demand and also ensures that any increases are alerted to the supply chain to help prevent future supply issues due to forecasting/ demand planning.

Frameworks

Within the portfolio a number of Frameworks have been established. These frameworks provide access to multiple suppliers and are typically used to access more complex medicines or where access to a broad range of products are required.



Supply Chain Resilience Case Studies

Medicines Contd.../

Case Studies

Frameworks **5749446 Medicinal Products and Pharma Funded Homecare**, and **3108130 Aseptically Prepared Unlicensed Medicines**, both provide access to complex medicines such as biosimilars and unlicensed medicines. The frameworks allow for the most appropriate product to be selected based on the need of the patient and access to alternative suppliers and products. They also provide the Trusts with compliant access to new products throughout the term of the frameworks. This increased access to alternative supply routes and product ranges helps reduce dependency on single supply chains.

As an additional measure to ensure Trusts can access medicines they require, framework **5009879 Medicinal Products Distribution and Associated Services** was established. This framework provides access to wholesale services and is therefore designed around a wholesale service as opposed to being product specific. This ensures an additional compliant supply route exists for Trusts to access products which cannot be accessed via the more typical contract routes or where there has been a failure in an existing supply chain (for example where a contracted supply route fails or there is a contract termination).

Strategic Contracts

Contracts that are of particular strategic importance, for example for the storage of vaccines, are designed to ensure supply is protected and service continuity is maintained.

Case Study

Contract **1647840 Storage and Distribution of Products for use in a Health Emergency**, contains a stipulation for the supplier to have two warehouses at different locations, with stock holding split across the two sites. This measure ensures that in the event of a failure at one warehouse, product can still be accessed from the second site, such is the criticality of this service.



Supply Chain Resilience Case Studies

Food

BSO PaLS manage the full portfolio of regional food contracts on behalf of Health and Social Care in NI. This includes an extensive range of ambient, chilled, fresh and frozen products with a total spend of circa £25m per annum across 2,198 catalogue lines.

The timely supply of food to Trusts is critical to ensure that a quality patient feeding experience is delivered to some of the most vulnerable people in society and to also provide a comprehensive catering service to all HSC staff and visitors. Alongside this, market capability and capacity to service these contracts on a regional basis is currently limited and therefore this category needs to be managed accordingly given the potential impact any supply chain disruption will have on the service provided to patients, staff and visitors.

As a result, BSO PaLS have continued with increased levels of supply chain resilience planning and activity in this area as follows:

- Mapping of supply chains (where applicable) that are dependent on just in time delivery to ensure contingency arrangements are in place to mitigate any impact of disruption. This has resulted in some products now being sourced locally and some supplier's local distribution/storage facilities being reorganised to reduce risk and shorten supply chains.
- Identification of key product lines that would be difficult to substitute and potential for suppliers to hold additional stockholding where possible. In addition, BSO PaLS holds over 200 ambient products in its warehouse which are ordered via electronic catalogue assisting with accuracy of forecasting and early identification of supply chain issues. For example, all retail available branded baby formula products are stocked in our warehouse which ensured the recent product recalls by some manufacturers in January/February 2026 had no direct impact on a product being available to HSC Trusts.
- Regular meetings with key food suppliers to identify any product availability issues in a timely manner and price pressures due to ongoing global uncertainty and volatile food supply markets. If required our supply partners work with us to resource new product in a timely manner to address any short term or permanent availability issues therefore ensuring continuity of supply for HSC.



Supply Chain Resilience Case Studies

Food Contd.../

- Continued use of lots where applicable to spread risk across the current supply base in NI.

All current contract renewals are subject to extensive preliminary market engagement exercises which allows for potential inclusion of aspects of social value and in particular supply chain resilience/delivering zero carbon and subsequent scoring of these as part of the tender evaluation process

Case Study

4083409 Supply of Frozen Foods Contract

The supplier of the above is located in ROI but acquired an additional facility in NI to support increased stockholding (which was a condition of the new contract) and which reduces any impact of supply disruption to critical dysphagia and frozen ready prepared product lines to HSC customers. In addition, PaLS, in the new contract, have introduced the need for quarterly review meetings which focus principally on all supply chain issues. This has considerably reduced the impact of any disruption in the supply chain compared to the previous arrangements. For example, a variety of products are now available for each of the levels of food texture required by dysphagia patients enabling choice and flexibility should there be any supply chain issues with a particular meal.



Supply Chain Resilience Case Studies

Information and Communications Technology (ICT)

The BSO PaLS ICT procurement team places supply continuity and supply chain resilience at the forefront of its contracting approach. To ensure Trusts have reliable and compliant access to essential ICT equipment and services, the team manages and utilises a variety of procurement solutions including the dedicated Technology Framework Agreement (TFA2), alongside other national public sector frameworks and Open Competitions. Throughout the delivery of the ICT procurement programme, the team has continued to strengthen supply chain continuity by embedding resilience measures into sourcing strategies, improving market engagement, and enhancing the consistency of supply routes across critical ICT categories. These continual improvements ensure that PaLS can effectively mitigate risks and maintain proactive service continuity for Trusts. Below are some of the Routes to Market (RTM) used to award some recent contracts.

Case Studies

Technology Framework Agreement 2 (TFA2)

Under the TFA2 Framework, further competitions are carried out at regular intervals across two lots for a wide range of ICT categories. The evaluation criteria used within these TFA2 call-off competitions are designed to strengthen supply continuity and ensure resilience across critical ICT product lines and services. Recent competitions have applied enhanced resilience-focused criteria, including:

- **Apple Devices, Services and Accessories for HSCNI** – Pre-market engagement (PME) exercises were held under Technology, Products and Associated Services 2 Framework (TPAS2) due to the greater number of 'Apple Authorised Resellers' on this framework however there was limited supplier engagement with only two submissions received from more than thirty eligible suppliers. As this would restrict competition and create a less robust supply chain, the ICT team determined that TFA2 offered a more resilient route to market by ensuring broader supplier participation.



Supply Chain Resilience Case Studies

Information and Communications Technology (ICT) Contd.../

- Using TFA2 for Apple Devices, Services and Accessories for HSCNI, supply chain resilience shaped the development of the tender documents particularly the decision to remove the warehousing requirement. Eliminating a fixed storage location avoided creating a single point of logistical failure and enabled a more agile, multi-channel delivery model. This flexibility broadens market access and supports direct-to-site fulfilment, which ultimately strengthened continuity of supply across the contract lifecycle.

Other National Frameworks

To ensure long-term supply chain resilience, it is essential that our procurement strategy avoids over-reliance on any single route to market. Despite the TFA2 remaining a valuable mechanism for enabling streamlined and compliant procurement activity, relying solely on one framework can reduce market reach, and thus increase vulnerability to supply disruption. To mitigate this risk, the ICT team broadened its supply chain coverage through the use of additional frameworks, including:

Checkpoint Licenses – A mini-competition was conducted using the Technology Products and Associated Services 2 (TPAS2) RM6098 framework. Compared with TFA2, TPAS2 offered significantly greater supply resilience, primarily due to its larger pool of suppliers holding the required Checkpoint partnership status. Although some suppliers operated across both frameworks, TPAS2 ultimately provided the most cost-effective and secure route to market.



Supply Chain Resilience Case Studies

Medical and Surgical Equipment and Consumables

Within the categories of medical and surgical, BSO PaLS manage the full portfolio of frameworks and contracts on behalf of Health and Social Care in NI. This includes an extensive range of products for which supply chain resilience and impact of disruption must be considered and mitigated so that supply chains are strengthened and consistency of supply routes enhanced.

Below are some examples:

Case Studies

Framework **5844776 Interventional and Diagnostic Cardiac Cath Lab Consumables** provides access to devices used in the diagnosis and treatment of heart conditions and diseases in Cardiac Catheterisation Laboratories across NI. The framework allows for the most appropriate product to be selected based on the need of the patient and access to alternative suppliers and products. It also provides the Trusts with compliant access to new products throughout the term of the framework. This increased access to alternative supply routes and product ranges helps reduce dependency on single supply chains.

Contract **4875089 Fluids and Consumables for Continuous Renal Replacement Therapy Machines (CRRT)**. This is a type of dialysis that is used for patients in an ICU setting and is a critical renal treatment. Due to the criticality of the service, the contract stipulates the contractor stock holding requirements including submission of stock holding reports, advance notice requirement of any potential supply disruption and sourcing of alternative products for approval.

Contract **4209371 Patient Warming Systems**. This contract is for the supply of patient warming machines, blankets and gowns. To ensure supply chain resilience, tenderers were asked to provide responses to questions regarding maximising security of supply and a weighting of 10% was allocated as part of the award criteria. Questions included information to be supplied in respect of stockholding and contingency arrangements.

Contract **2339172 Cardiopulmonary Bypass Oxygenators with Customised Tubing Pack**. Cardiopulmonary Bypass provides a bloodless field for cardiac surgery. It incorporates an extracorporeal circuit to provide physiological support in which venous blood is drained to a reservoir, oxygenated and returned to the body using a pump. The products are critical and to address supply chain resilience, the contract was awarded to two suppliers on a 60% / 40% of business basis thus providing for two supply routes and reducing risk of supply disruption.