

Medicines Availability: from Problems to Solutions

Stakeholder Symposium meeting

Summary of Outputs

Authors:

Professor Liz Breen, Professor of Health Service Operations*

Dr Iuri Marques, Senior Research Fellow in Safe Use of Medicines

Dr Zoe Edwards, Honorary Senior Research Fellow

Dr Beth Fylan, Associate Professor in Patient Safety

*Corresponding author - I.breen@bradford.ac.uk

Owners:

University of Bradford School of Pharmacy and Medical Sciences

Date: 29th October 2019 Version:1

Distribution: Symposium attendees and interested parties

Purpose and Summary of Document: Summary document



Introduction

Thank you for your support for this event. In this document, you will the outputs from each of the tasks completed on the day. The proposed actions focus on five key areas: Information, Communication, Supplier Sourcing, Trusted Partnerships and Knowledge Sourcing.

The tasks undertaken during this event were:

- Task 1: What management strategies can we put in place to improve medicines availability?
- Task 2: How effective are communications regarding availability issues/alternatives? How can these be improved?
- Task 3: What strategies can pharma and the NHS employ as a team to mitigate medicines shortages?

Outputs:

Task 1: What management strategies can we put in place to improve medicines availability?

Attendees were asked to identify management strategies that should be enacted in the supply chain to improve medicines availability. After a ranking exercise, consensus was achieved regarding the key short-term, medium-term and long-term management strategies. The strategies agreed were:

Short-term (in order of most importance to least)

- Early, open transparent communication around potential issues;
- Communication and education between all members of the supply chain from manufacturers to patients re shortages;



- Transparency and different parts of supply chains getting together to work through problems;
- Manufacturers to identify solutions themselves before referring to NHS for help;
- Stockpiling for short financial gain tackled at a professional level;
- Control of exports and parallel trading;
- Community pharmacists should be encouraged or made to suggest alternatives to the prescriber if something is in short supply;
- Improve communication with patients via media or government advertising and patient groups to educate about dangers of stockpiling and reassure about measures already in place;
- Department of Health and Social Care to make recommendations for medicines that are identified as having a supply problem and communicate with HNS front line staff;
- Ensure local information about availability is shared between community pharmacies;
- Improve communication with patients e.g. change in package, language difficulties, face-to-face explanation;
- Educate all stakeholders about supply chain.

Medium-term (in order of most importance to least)

- Determine if fundamental issues that are being addressed are technical or commercial;
- Better supply/demand management in hub and spoke model as operated by community pharmacy (centralised stock) or enforce supply controls on existing wholesalers.;
- Work together to ensure all companies that submit tenders are professional and can fulfil their part of supply chain;
- Justification for the basis of tendering decisions price or other factors?
- Central team capacity to be proactive and not only reactive;
- Competition driving process too low to allow for profit needs to be addressed;



- Understanding of the relationship between manufacturer, supplier and wholesaler and influence of any one of these parties on the whole supply chain (vertical integration);
- Ensure experience and training of people who control stock issues within manufacturer are adequate;
- Visible database showing shortages (like Australian model) to improve planning on a global level;
- Determine the optimal length of contracts do they offer stability or lockouts?
- Increase UK home manufacturing.

Long-term (in order of most importance to least)

- Plurality of supply (parties and routes) to reduce risk;
- Determine if fundamental issues that are being addressed are technical or commercial?
- Work with manufacturers, don't shut down;
- Encourage more manufacturing (to increase price);
- More focus needed on manufacturing;
- Increase flexibility in manufacturing;
- Balance cost of saving supply issues against investment in more sustainable supply;
- Ensure experience and training of people who control stock issues within manufacturer are adequate;
- Extend shelf life of products when manufacturing.

Task 2: How effective are communications regarding availability Issues/alternatives? How can these be Improved?

Three clear levels of communication emerged from group discussions, each of which had several suggested improvements to current communication channels/methods. These are presented below.



Global - national level bodies

- Communications between devolved nations needs to be enhanced. Companies
 in such locations should be able to share information through specified channels
 and not be hindered by this political stance;
- It should be apparent which parties seek to undertake horizon scanning of the
 pharmaceutical supply chain globally to determine trends and patterns which
 impact directly on UK trading and stock availability. A more robust system needs
 to be put in place (if it does not already exist) or reciprocal agencies sharing
 information transparently regarding medicines production and consumption
 globally;
- Manufacturers should routinely report medicines shortages to the DHSC/NHSE/I. Issues should be reported as soon as possible (three months would be preferred where this information is known) but periodic updates should be provided biweekly with a more detailed report monthly. Where planned shortages are known (e.g. delay in production known due to regulatory issues) these should be declared to the relevant body e.g. MHRA. There should be sanctions built into contracts for not reporting this information or incentives for doing so (as agreed and as stipulated in contracts. Information should be timely, accurate, relevant and actionable;
- When undertaking supplier appraisals, the DHSC/NHSE/I should revisit the
 measures used in the supplier tendering process. This is to ensure that they are
 fit for purpose and that decisions made regarding trading arrangements are low
 risk:
- There ought to be an updated and accurate list of products with a single supplier (deemed more risky) available for healthcare professionals to review. This would highlight potential product availability issues or products that may require more attention (and identification of alternate sources of supply);
- Manufacturers and wholesalers are responsible for maintaining their supply chains to avoid unnecessary delays in the production and movement of stock.
 This should be accompanied by timely and regular sharing of information with customers and government bodies regarding any known or anticipated stock issues.



National level bodies – national/local services

- The way frontline staff receive information (from the DHSC, NHSE/I, MHRA etc.) needs to be improved, and that information can be shared internally within an organisation to the staff who need to access and action it. Healthcare organisations should consider the creation of Communications Champions to support the creation and dissemination of targeted, digestible and actionable information?
- E-mails cascaded from national bodies and within organisations are not being read at practice level. We need to consider the best mechanism to filter information to clinicians, so they access important Information. This could be achieved (or suggestions included) either via the current system by changing the depth and quality of content shared, by changing the system/mechanism in which the content is shared, or both;
- Written patient information is too technical, which can lead to knowledge, language and comprehension barriers. Simple facts are needed to reassure and inform patients. This issue needs to be considered for all information disseminating from key sources e.g. NHSE/I, manufacturers/DHSC. Written information should also be supported by local information sources and direct discussions with patients;
- Editors of large-scale media mailings would benefit from explicit guidance on the most appropriate time to send messages, their content, how to target relevant groups (to not spam and overpopulate inboxes) and determine whether information needs to be shared as a physical or electronic source. The content and how it is delivered is important so that it is attractive and appealing to patients, drawing their attention, and ensuring that it is read. NHS Mail has been reported to being difficult to access and so is underutilised which leads to important messages not being read;
- Peer-to-peer communication (pharmacist to pharmacist), or Inter-pharmacy communication when there are medicines shortages must be efficient (e.g. when exchanging stock) so that patients are served timely and pharmacists do not lose customers;



- Communication from pharmacy representatives or wholesalers to pharmacists and/or governing bodies need to be more proactive with sharing and disseminating information: they are the parties who know what happens, how it happens, when and why it happens;
- There are different ways and levels of reporting when communicating medicines shortages. Although there has been recognition that systems are adequately configured to share information at the same level (e.g. CHSC to NHSE/I, or GP to GP), it is not clear whether there is confidence in the data being shared across different countries and governing bodies within the UK. Reporting needs to be planned and occur horizontally and vertically amongst all NHS operations. Constant monitoring of communication structures and their efficacy in transferring information via these routes (as deemed successful based on action taken) will identify if there are gaps in the information shared across different levels and what can be done to ensure important actionable information is not being lost;
- Local information meetings should be used to discuss and produce local solutions to local issues, given their potential to be able to identify, respond quicker and more effectively. However, achieving this requires receiving the necessary information at the right time from RPS/LPCs/PCNs, etc.;
- Communication links between primary and secondary care should be established
 for professionals to share information about medicines availability. This would act
 as a mechanism for updating their knowledge of real-time stock in the supply
 chain, but also facilitate product auctions to buy/sell stock to other healthcare
 professionals;
- Improved education for pharmacists should be considered to support their management of medicines shortages. This can potentially increase pharmacists' confidence and efficiency in making decisions when sourcing alternate products. If pharmacists could access a central system to view stock availability and locations, then they would be able to manage shortages more effectively. Technology and/or apps to support this would be welcomed, to push notifications to pharmacists;



- GPs would benefit from forewarning of stock shortages to inform their prescribing patterns/decisions and facilitate informed discussions with patients;
- There needs to be clear, convenient, effective and accessible communication channels between NHS Trusts/Pharmacists/Prescribers.

National/local services – public

- Social media plays an important role in communicating with the public and this should be capitalised in the form of relevant, targeted, important information that is easy to access. Patient reference groups and health and wellbeing boards could support and/or lead on this form of communication;
- Patients should receive information regarding medicines issues that affect their care. Communications can be routed through the HCP, PCN leads, Boards etc., and information can be shared with PRG members, People's Board and Trust members (e.g. Foundation Trust membership counsellors);
- Communication between patients and clinicians is considered to be more efficient with regular pharmacists as opposed to, for example, locums, as these are more familiar with their patients as well as systems and are therefore in a better position to ensure continuity of care. Locums may not possess the necessary knowledge or time to approach the patient as efficiently, and lack of familiarity may mean that they do not prioritise these communications due to lack of time or competing priorities. Careful attention should be given to the process of handover between pharmacists, so that relevant information is transferred efficiently without loss, thus supporting more effective patient interactions;
- Important messages to patients need to reach them in a timely manner and GPs,
 pharmacies or relevant charities are in a privileged position to ensure this
 happens. Messages should be targeted when possible, to get to the right patient
 body so they can be read and actioned. Technology can help to identify the right
 patients for each message and the best distribution method/channel;
- The use of technology apps and platforms could help disseminate information to patients, (e.g. to check and re-order their medicines), to give them more visibility about their medicines (e.g. in terms of stock availability and shortages).



However, these must be efficient and not cause additional burden, adding extra steps for the patient when accessing their medicines;

• The substitution of a product when regular medicine is not available or when brands change happens frequently and regularly. Therefore, patients need to be educated so that they do not become concerned when it happens. Areas that that need to be considered in delivering this message are content clarity, depth of information need, brevity of material, approach to delivery, format or delivery and who does this/who is responsible for doing this. People may assume that brand changes to generic products are of lesser quality and need to be reassured that this is not the case and be confident that their healthcare professional is making sound decisions for their health. In primary care communication and patient education are currently the responsibility of the GP and pharmacist, who are the first point of contact and these parties need to have the correct information to support their patients.

Task 3: What strategies can pharma and the NHS employ as a team to mitigate medicines shortages?

Groups were asked to comment on what strategies needed to be in place and enacted in order to reduce the frequency and impact of medicines shortages and clarify their logic for their propositions. Their cumulative views are presented below.

- Real time stock information on prescribing should be available to inform decision making at the point of patient consultation;
- To drive efficiencies and appropriate behaviours in this supply chain, patient information should be available to a pharmacist to ensure continuity of care and medication (linking secondary and primary care);
- There should be more focus on deprescribing as an outcome of patient reviews.
 This would minimise the inappropriate use of medicines, reduce potential patient harm but also reduce the volume of medicines in circulation and in patients' homes;



- Instigate an agreed escalation route which validates reporting of shortages within
 a locality, akin to the Yellow Card scheme this would have to be endorsed by
 key parties such as the MHRA and DHSC to encourage professionals to engage
 with it;
- The prevalence of temporary list prices for medicines is problematic. There ought to be enhanced emergency pricing to inform action;
- The current logistics and stock movement within this supply chain is very effective so this should be strengthened;
- There should be a dedicated contact in all organisations who has oversight of
 their company's role in managing medicines availability. This contact point ought
 to be transparent and accessible. This should be part of an integrated strategic
 approach to proactively managing medicines inventory. The responsibility for this
 lies in all parties consensually agreeing the design, composition and delivery of
 this strategy;
- GPs and Pharmacists should raise patient awareness of the purpose and value
 of alternative medications when first prescribed. This would reduce unnecessary
 concerns patients have and build confidence in the system. This should be
 further supported by the user-friendly information provided by healthcare bodies
 on the use of alternative products (e.g. why do we have serious shortage
 protocols and how do these work for patients?);
- The NHS bodies are encouraged to increase its system resilience by increasing manufacturing capacity in partnership with industry and promote risk sharing amongst suppliers;
- Consideration should be given to the tendering process and the content of contracts to motivate positive performance and behaviours from pharmaceutical suppliers. Key considerations are: can we incentivise as part of contracts and not penalise? How do we make tenders more attractive to encourage more suppliers to apply? Are contracts rigorous enough (in design and enforcement) to compel suppliers to performance and behave in a responsible manner? Will more suppliers reduce prices through natural competition and will this deliver greater value for money?



- Industry good and best practice should be identified and consistently applied and shared throughout this supply chain. This would reduce weak or ineffective practice which erode goodwill and confidence amongst partners;
- Communications between non-commercial parties should take place to improve patient care and to avoid potential patient harm or litigation caused by supply issues;
- Supply chain partners should undertake accurate forecasting within their operations. There should be consideration of risk levels attached to key products or suppliers to indicate their importance to the patient and to the NHS system (akin to the ABC system used in inventory management or learning from other systems/technology such as RFID, Argos, Decathlon etc);
- The NHS should invest in the creation of a portal which houses essential data and which is managed and monitored by a dedicated team of people. This would provide accurate data to professionals to manage medicines in the system and better respond to patients. The NHS.Net has weaknesses and this portal would resolve these leading to more effective communications and targeted action to respond to shortages;
- There ought to be agreement from all parties in the supply chain that they are
 working as a collective to a common vision and purpose and that there should be
 a no blame, just and fair culture as operated in healthcare and other industries;
- The decision of where stock is allocated to and to whom needs to be transparent and evidence based, based on clinical need. Parties need to endorse this approach;
- There needs to be agreement from supply chain partners that a lead organisation will be nominated to manage medicines shortages. This will ensure decisions are made clearly and quickly and not in any one parties' interest;
- More robust contingency planning is needed across the supply chain. There are known unknowns at a national level which carry risk and this needs to be addressed;
- Can patients as the end users of medicines report medication delays and shortages? These could be collated via NHS 111 or an online dedicated repository. This could be linked into a supply portal (as previously discussed);



- We can increase the volume of unlicensed medicines brought into the country and work with specialist wholesaler units in creating supply sources;
- Promote the supply of complementary and alternative evidence-based medicines/therapies to support the medicines supply chain and social prescribers (more potential for this to happen courtesy of PCN development);
- There should be acknowledgement and recognition that there has been an immense amount of work undertaken to reduce the prevalence and impact of medicines shortages across the entire supply chain. As problems still exist, is the problem now too unwieldy to fix or is it the case of too many projects and not enough oversight and governance of activity? Can we resolve this by having transparency within this supply chain and agreement of leadership considering this crisis? Communications filtered from the leading body would provide a consistent and enforceable message regarding medicines use and availability;
- Sharing is caring. Patient care is what this supply chain aims to deliver. We cannot undermine patient confidence further. Patients need to be reminded of how innovative and dependable pharma and the NHS is in responding to their needs;
- The valuable role of healthcare professionals in couriering information between pharma and the patient needs to be remembered and supported. Pharmacists as experts in medicines have a leading role in supporting patient care when faced with product discontinuity. This recognition is reinforced using SSPs but needs to extend further;
- Brexit/The EU Exit is a challenge to the pharmaceutical supply chain, but supply chains globally face challenges daily. They are resilient and they recover. This supply chain needs to reflect and learn from this experience and come back stronger, stronger together;



Symposium Recommendations

The following 22 recommendations are directed at key groups/stakeholders (owning bodies) in the supply chain who are responsible for delivering these whilst the enabling may be done by other parties.

Pharmaceutical manufacturers/suppliers/wholesalers should:

- 1. Establish a cohesive partnership within this supply chain to foster joint responsibility.
- 2. Have regular and clear communications regarding shared plans for medicines inventory management stock this is critical in preventing an increase in medicines. shortages. Legally whilst information cannot be shared between competitors it can be shared with the DHSC and NHSE/I and these bodies can take the necessary action.
- 3. Maintain open lines of communications with the DHSC and NHSE/I regarding strategic and operational developments which may challenge/undermine or strengthen the continuity of medicines supply.

Industry, Professional and Patient Advisory Bodies should:

4. Industry and healthcare bodies should cultivate new collaborations and partnerships with pharma, healthcare professionals and patients. This should be facilitated through a network of linked and continuous communications with key stakeholder representatives and should have governmental oversight.

DHSC and NHSE/I should:

- 5. Revisit the medicines supply tendering process to ensure that the approach to procurement is multi- not single sourcing. Good decisions made based on thorough vendor appraisal should reduce the risk of supplier failure and stock shortages.
- 6. Create a risk register of both products which are considered high value/use so that these have more stringent governance regimes and have alert mechanisms triggered at the earliest opportunity (akin to inventory management ABC categorisation).



- 7. Re-design contracts to incentivise expected behaviours regarding delivery of not only products within given contractual parameters but also the timely release of accurate and actionable information regarding medicines production/distribution.
- 8. Consider how pricing and contracts should be the same across suppliers to increase the ease of access, particularly at emergencies to promote equitable access and fair play.
- 9. Provide a platform for information access and sharing regarding medicines availability (e.g. NHS.net portal) see recommendation 14.
- 10. Assemble a task force to consider undertaking the examination of the TGA and other global systems to determine their functionality, fitness for purpose, fit with existing data systems and the resources needed to set up and maintain such a system. Long term transparent information sharing (like the Australian model https://apps.tga.gov.au/prod/MSI/search) on reported medicines shortages should ensure accurate information is shared with all supply chain stakeholders including patients.
- 11. Have a nominated contact within organisations to provide the accurate information on medicines availability issues and design more effective escalation systems to communicate this.
- 12. Target e-mail communication to specific audiences (e.g. at practice level or pharmacy) to avoid dilution. Systems should allow the easy prioritisation of information. This should also happen when messages are disseminated to patients (e.g. mass-media). General spam should be avoided. Mail-merging is a potential solution to increase communication targeting.
- 13. Accessibility solutions (e.g. via apps) should be developed for patients using contemporary technologies, to access relevant information about their health profile, medicines and stock issues, etc. For example, a patient portal with useful information about stock availability and alternatives and the ability to book appointments to discuss medicines would be beneficial for patients and healthcare professionals. Alternative low-cost solutions must accompany digital/technological solutions to ensure wider reach.
- 14. Create a dedicated part of NHS site to provide regular updates of medicines that have critical patient impact to see what problems there are and what action can be taken this can be linked to recommendations 9 and 10.



Secondary and Primary Care should:

- 15. Initiate contracts and agreements across pharmacies and suppliers should allow the free movement of medicines across pharmacies, particularly at times of shortages or crisis, with incentives for those who share.
- 16. Ensure that stock locations are transparent in primary and secondary care is when medicines shortages prevail. There should be a system that healthcare professionals can log their stock levels with the view of internal purchasing from other pharmacies. This would be very much on an opt in basis but would be a formalised system (as opposed to current practice of contacting pharmacy colleagues via telephone or WhatsApp groups). The system would resemble an Ebay solution. This would ensure local pharmacies know where stock is located and accessible to better advise patients or cross-source. Commercial examples of this are already in place (Ludapharma https://ludafarma.com/IIMFront/#/login and Bot plus -https://botplusweb.portalfarma.com/).
- 17. Have dedicated systems for receiving stock alerts and reporting should also allow for inter-clinician communication across both primary and secondary care to aid prescribing decisions and avoid delays in dispensing.
- 18. Clinicians that are of easy access to patients (e.g. pharmacy, GP practices and charities) should take ownership of targeted campaigns regarding supply shortages of medicines for key conditions or widespread and lengthy supply stockouts. Advice on and support for this can be provided by government and advisory bodies such as the RPS and GPhC. Posters, flyers and even written correspondence (e.g. e-mail) may help with hard-to-reach or specific patients, upon patients' consent. Face-to-face communications (e.g. pharmacy) present perfect opportunities to raise patient awareness to further resources, materials and information.
- 19. In line with the previous recommendation, healthcare professionals should design patient education programmes to demystify the use of generic medicines over branded ones.
- 20. Have increased visibility of patient information (their healthcare records and profile) to aid pharmacists in treating and advising patients. Given their enhanced role courtesy of SSPs this additional knowledge would be advantageous.



21. Pharmacists should be encouraged to take ownership of the patient and their medicines shortage and aim to address this by taking time to source alternative medicines/consult with the patient on other options. As this may be time consuming, they should be recompensed in some manner for this additional work. The RPS/GPhC/DHSC should consider how they could operationalise and support this.

Patients/Carers should:

22. Participate in local, regional and national forums to advise on how best to provide meaningful information regarding medicines shortages to patients without adding undue angst into proceedings. Patient contribution is vital to this forum in ensuring that outputs from this are useful to them and instil confidence in the system. This should be on a local basis to reflect local needs but should be replicated nationally. Contributors to this should be from across the supply chain but also include national charities and local support groups.