Exercise Joyce (preparing for EU Exit) report.

1. Background

Since summer 2018, Leeds Teaching Hospitals NHS Trust has been preparing for the UK's departure from the EU in March 2019. This has included identifying the risks and issues arising from both a managed and disorderly exit (deal or no deal).

In line with Emergency Preparedness, Resilience and Response principles and good practice, the Trust undertook a desktop exercise in February 2019. Exercise Joyce[1] involved staff from teams across the organisation and considered the risks and response to scenarios drawn from the Trust's risk assessment of potential impacts from EU Exit.

This report outlines the exercise format, content and the learning identified from the output of each scenario.

2. Objectives

The objectives of the exercise were:

- To raise awareness of the risks associated with EU Exit
- To identify further risks or issues for Leeds Teaching Hospitals NHS Trust (or our partners)
- To understand and test what arrangements are already in place to respond to any disruption arising from EU Exit
- To identify further actions and plans needed

3. Exercise format

The exercise was undertaken as a discussion based, table top exercise. The exercise was run on two occasions with different attendees to maximise the number of participants.

Participants were presented with 5 scenarios and a mixture of questions to draw out learning and assurance. The scenarios were drawn from the risk assessments for the EU Exit, Local Resilience Forum reasonable worse case planning assumptions and the national workstreams identified in the Operational Readiness Guidance[2].

[1] Joyce Smith was the first female winner of the inaugural London Marathon on 29th March 1981. The UK is expected to leave the EU on 29th March and so the name Joyce was chosen for the exercise.
[2] Operational Readiness Guidance (December 2018), DHSC, available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/768077/eu-exit-operational-readiness-guidance.pdf

The exercise material is included in appendix 1.

4. Scenarios

Scenario 1: 1st April 2019 – fuel shortage caused by traffic congestion at ports due to customs delays.

Participants were directed to consider:

Q1. What are the implications for LTHT?

Q2. What plans are already in place?

Q3. What coordination will be needed at CSU and Trust level?

Scenario 2: 2nd July 2019 – shortage of medicines and other products requiring temperature - controlled supply chain.

Participants were directed to consider:

Q4. What mitigating actions can LTHT implement?

Q5. Can we achieve this within our own resources? If no, how would we escalate and to whom?

Q6. What are the key communication messages for?

a. Patients b. The public c. Staff d. Partners

Q7. How will we manage the shortage of any medicines?

Scenario 3: 22nd April 2019 – shortage of clinical and non-clinical consumables as a result of a fire in a warehouse housing NHS supply chain stockpile.

Participants were directed to consider:

Q8. How can you support procurement to understand what stocks and recent orders are critical?

Q9. What is the impact of the cancellation of the procedures identified? (A 2 week theatre list for two suites at St. James's with anonymised cases were provided for discussion)

Q10. How will we coordinate the response to this event?

Scenario 4: 8th June 2019 – cyber-attack affecting the NHS exploiting focus and attention on EU Exit preparations for the NHS.

Participants were directed to consider:

Q11. What are the key communication messages for?

a. Patients b. The public c. Staff d. Partners

Q12. What is the impact on your service of having no internet connection?

Q13. What should we be doing now in anticipation of this type of incident?

Scenario 5: September 2019 – ongoing staff shortages in social care and community services due to EU nationals returning to the EU and attracted to the private sector due to increased wages, impacting on discharges for the Trust.

Participants were directed to consider:

Q14. What are the implications of this scenario?

Q15. What actions can the Trust take?

Q16. What are the concerns for winter and how do we mitigate these?

5. Participants

20 clinical and non-clinical staff participated in the exercises representing Corporate Operations, Supplies and Procurement, Estates, Facilities, Medicines Management and Pharmacy services, Medical Physics, Women's services, Emergency Preparedness, Leeds City Council, Leeds Children's Hospital, Digital and Informatics, Head and Neck, Chapel Allerton Hospital.

6. Summary

Due to time constraints no formal debrief was held following the exercises. The feedback during and at the end of the sessions however was positive with participants noting that the scenarios and discussions had met the objectives of the exercise.

Participants reported feeling better informed of the risks and issues associated with EU Exit and reassured by the existing plans and arrangements for dealing with disruption. In particular it was noted that the embedded nature of the Trust's command and control arrangements allowed these to be mobilised in response to all the scenarios discussed.

With regards to shortages of medicines and supplies, it was recognised that these events are not unusual and existing mechanisms could be utilised and augmented to provide an effective response to mitigate disruption caused.

There were several areas of further development as part of the Trust's business continuity management arrangements with only some of these exclusive to EU Exit, specifically around disruption from IT incidents and fuel shortages.

Communications were highlighted as an area of development with regards to keeping staff informed of plans and risks in the coming weeks and also the need to have regular communications with teams and stakeholders in the event of disruption.

No additional risks were highlighted from the exercise but the additional impacts from identified risks will be included in the EU Exit risk assessment.

The lessons identified from the exercise are detailed in section 7. The output of the scenario questions is included in appendix 2.

7. Lessons identified and recommendations

The exercise identified a number of lessons and recommendations which are detailed below and will be taken forward in order to improve the Trust's resilience for disruptive events and some specific to EU Exit.

Ref	Lesson identified	Recommendation	Action required to meet recommendation	Action owner	Timescales	Risks and / or interdependencies
J01	The Trust's fuel disruption plan relies too heavily on the invocation of the NEP-F and should include a wider range of impacts and potential mitigation. There is an assumption that designated filling stations	Fuel disruption plan to be reviewed to include fuller list of potential impacts and disruption and potential mitigation	Fuel disruption plan to be reviewed and recirculated	Adam Bland	By 22nd March 2019	Reviewing and recirculating plan may increase concern about risk of fuel shortage resulting in unnecessary panic buying and creating an issue
J02	Shortages of products and fuel could result in increased risk of theft.	Review security risk assessments for all areas storing significant supplies, pharmacy and fuel	Security risks assessments reviewed	Peter Aldridge	By 22nd March 2019	
J03	Existing arrangements for incident response arrangements (CSU Bronze / Incident Silver / Hospital Gold) coordination are effective for responding to likely disruption from EU Exit	EU Exit incident response to mirror existing arrangements	EU Exit plan to include Trust incident response plan structures and communications	Adam Bland	By 22nd March 2019	
J04	Escalation and coordination at a regional and national level is more likely with EU Exit	National and regional arrangements need to be confirmed and included in Trust arrangements	NHS England to confirm details of command, control, coordination and communication Turst EU Exit plan to include regional and national coordination arrangements	NHS England Adam Bland	By 22nd March 2019	NHS England

Ref	Lesson identified	Recommendation	Action required to meet recommendation	Action owner	Timescales	Risks and / or interdependencies
J05	More frequent communications for staff around current risks and reassurance for EU Exit are needed	Communications to be developed for phase 1 (now to EU Exit), phase 2 (during EU Exit / disruption)	Communications plan developed	Jane Westmoreland	Phase 1 – 4th March Phase 2 – 22nd March	
J06	Process for medicines shortages to be clear and understood by all	Trust pharmaceutical shortage protocols to mirror regional arrangements and include senior clinician and pharmacists	Shortage protocols and decision making to be documented and included in EU Exit plan	David Bryant / Adam Bland	22nd March 2019	NHS England Serious Shortage Protocol not yet shared
J07	DIT and CSUs are not clear on the impact of loss of the internet	Matrix of IT systems and dependencies to be shared with CSUs	DIT to share matrix of IT systems and dependencies to support CSUs in developing business continuity plans for loss of IT	Sarah Dempsey	22nd March 2019	
J08	Paper forms are not readily available for all teams	Stock of paper forms for use in IT outage to be made available on all sites and high volume, non-networked printer to be available at both main sites	Paper forms for key systems to be produced and available in hard copy and electronically (off network) for printing in an incident Appropriate printers to be sourced	Sarah Dempsey	April 2019	
J09	NHS Supply Chain store some products in a single location reducing resilience in event of warehouse loss (SPOF)	Critical supplies with single location to be identified to inform contingency planning	Critical supplies with single location to be identified Specific contingency plans for these items to be developed	Steve Barker	April 2019	Dependent on NHS Supply Chain to provide information
J10	Social care staffing shortage could impact winter plans	Risk identified for winter 19/20 and winter plans to consider implications of reduced social care workforce	Social care workforce risk to be included in winter debrief and planning for 19/20	Saj Azeb	September 2019	

8. Glossary

BC	Business Continuity
BEIS	Department of Business, Energy and Industrial Strategy
DIT	Digital and Informatics Team
EU	European Union
NEP-F	National Emergency Plan for Fuel
NHSSC	NHS Supply Chain
SPOF	Single Point of Failure

Appendix 1: Exercise material

Objectives

- To raise awareness of the risks associated with EU Exit
- To identify further risks or issues for Leeds Teaching Hospitals NHS Trust (or our partners)
- To understand and test what arrangements are already in place to respond to any disruption arising from EU Exit
- To identify further actions and plans needed

EU Exit Workstreams

- Medicines
- Vaccines and other public health issues
- Clinical trials and research
- Medical devices and clinical consumables
- Non-clinical consumables, goods and services
- Blood and transplant
- Workforce
- Reciprocal healthcare and overseas visitors
- Data

- *Security*
- *Finance*

Exercise assumptions

- The UK will / has left the EU on 29th March
- The Trust, Government departments and suppliers to health and social care have taken all agreed actions to mitigate disruption
- Scenario 1, 2 and 3 – the UK has left without securing transition arrangements (No Deal)
- Scenario 4 and 5 – the UK has secured transition arrangements (Deal)
- Scenarios are independent of each other, go with them!

Scenario 1

Q1. What are the implications for LTHT?

Q2. What plans are already in place?

Q3. What coordination will be needed at CSU and Trust level?

Scenario 1 – 1st April 2019

- BEIS have confirmed that there are sufficient normal and contingency fuel stocks in mainland Britain.
- Three days after the UK left the EU without a deal, there are long delays at sea ports, including Immingham.
- Fuel tankers are unable to access refineries or access the motorway network around Humber and shortages are being reported at local filling stations.
- This has resulted in panic buying and many filling stations in Leeds are now reporting low supplies and long queues.

Scenario 2 – 2nd July 2019

- MMPS has escalated concerns that there are issues with importing medicines and other products that require a temperature-controlled supply chain (cold chain).
- Medicines, such as insulin, and human tissue which is only available from overseas are facing delays at ports with limited or no cold chain storage facilities. Due to the on-going issues with supplies issues the UK stockpile of these medicines are low.
- Increased traffic congestion around points of entry to the UK is further delaying deliveries and when supplies do arrive, increasing proportions of the orders are being discarded due to concerns over the maintenance of the cold chain.

Scenario 5 – September 2019

Q14. What are the implications of this scenario?

Q15. What actions can the Trust take?

Q16. What are the concerns for winter and how do we mitigate these?

Scenario 5 – September 2019

- Adult Social Care teams and other community based healthcare providers are continuing to report that they are unable to staff their rotas due to large numbers of vacancies and limited bank staff being available.
- This is the result of EU workers returning to their home countries as the cost of living in the UK is rising and as a consequence of pre-EU Exit austerity measures wage rises not keeping pace with inflation.
- Unqualified EU workers are leaving the public sector to take up less skilled jobs in the private sector where hourly wages are soring to attract staff.
- The inability to cover shifts is resulting in LTHT being unable to discharge patients due to care packages not being available to provide the necessary community-based support. Delays attributed to social care assessments and POC are at their highest ever level.

Scenario 4 – 8th June 2019

Q11. What are the key communication messages for?

a. Patients
b. The public
c. Staff
d. Partners

Q12. What is the impact on your service of having no internet connection?

Q13. What should we be doing now in anticipation of this type of incident?

Scenario 4 – 8th June 2019

- Microsoft and Oracle have identified a vulnerability which enabled malware to be installed through a software update on some NHS systems.
- GCHQ and NCSC believe the attackers took advantage of the distraction caused by EU Exit. The high profile coverage of NHS preparations gave the attackers inspiration for their victim.
- Details of the malware's actions are not known and it is unclear which organisations have been affected but there are reports that LTHT staff and patient details are available on the dark web but no further information is know.
- NHS Digital have advised isolating our network until we understand the impact and scale of this cyber attack.

Scenario 3 – 22nd April 2019

Q8. How can you support procurement to understand what stocks and recent orders are critical?

Q9. What is the impact of the cancellation of the procedures identified?

Q10. How will we coordinate the response to this event?

Scenario 3 – 22nd April 2019

- LTHT has not experienced any stock shortages and all orders are being filled thanks to the effective stockpiling and contingency planning by NHS Supply Chain but there continue to be long delays at customs checks across the UK.
- On the morning of Monday 22nd April report a fire has broken out a one of the 6 national warehouses stockpiling NHS Supply Chain supplies.
- The Trust's catering supplier uses the same industrial estate.
- The decision is taking to suspend elective activity to safeguard supplies until we understand which supplies are impacted.

Scenario 2 – 2nd July 2019

Q4. What mitigating actions can LTHT implement?

Q5. Can we achieve this within our own resources? If no, how would we escalate and to whom?

Q6. What are the key communication messages for?
- a. Patients
- b. The public
- c. Staff
- d. Partners

Q7. How will we manage the shortage of any medicines?

Appendix 2 – output of discussions.

Discussions took place around tables with participants recording their responses to the questions on sheets of paper. These have been collated and are presented below.

Q1. What are the implications for LTHT?	
Staff travel internal/ external Goods inbound Internal/ external patient food Waste out bound Patient travel Inbound Discharge Appointments Increase on reliance on YAS Higher attendance in A+E Security of own site security protecting fuel supplies Volunteer service - voluntary organisation Patient access Community services Ambulances - ability to admit/ discharge patients	Partners access/ deliveries e.g. GP bloods, supplies and food Mortuary capacity Hospital closures Fuel plan - badges/ passes to staff for essential Utilise shuttle Generators on diesel Cleaning medical equipment - BBraun Staff accommodation Oxygen, medical gases delivery Food Medicines - transplant, dressings, blood Air ambulance Electric cars LCC support Sharing info ICC Silver command Diesel/ Generators and theft

Q2. What plans are already in place?	
Contingency Plans (Existing) - staff shortages - goods Trust CSU specific Reduce activity Expand area of support/ partners National plan Dedicated filling stations Comms to all staff Priority badges	LTHT fuel shortage policy Overnight accommodation 2 week supply stock - confident that external suppliers have enough stock (5 weeks) Comms to all staff Business as normal Encourage car sharing Cancel study leave or any annual leave Trust level business continuity plans Consider urgent/ routine - ration Consider coordination of staff for travel

Q3. What coordination will be needed at CSU and Trust level?	
CSU - Bronze Command Trust (overall) - Silver/Gold Command Comms to all staff Transport	Clear channels communication Expectation of what we need to do Activity levels Command and control - Bronze/ Silver/ Gold command

Q4. What mitigating actions can LTHT implement?	
Own additional refrigerated units Container	Can we delay procedures - clinically urgent Can we work with alternative providers

Road Vehicles Existing capacity at Moor Road Alternative medicines that don't need to be temperature controlled Any alternative medicines in stock already Prioritising needed of Diabetic cons approval Alternative treatment List - primary care vs secondary Risk assessment of use (Zero waste) Initial response prior to low stock - 1-2 week Theatre supplies - prioritise acutes Local partners (Shared stock) Check people need drugs affected Delay procedures where possible Increase observations of chilled facilities In bound routes Self collect Heli Deck Understand impact now for key areas e.g. tissue availability Consider alternatives - can it be manufactured locally	Mechanical alternatives/ non-human based Organise patients according to harm level Patients bring own medication Notifications of shortage supply drugs Understand current levels and how long they will last - current run rate Opportunities to extend run rate ? reduce in areas ? alternatives Prioritisation Local pharmacies - manage demand and priority Can we extend 'use by' dates Patients have stock Check stocks Other ports Comms other Trusts - regionally/ nationally ? blood drives Insulin alternatives Pharmacy stock piles Cold storage delivery options Silver Command Key comms to patients

Q5. Can we achieve this within our own resources? If no, how would we escalate and to whom?	
Medicine at home - bring into hospital - comms out Silver/Gold Command - NHS England Private Hospitals - what stocks do they have available	Escalate through chain Ask community/ local pharmacies/ DDH's Manage - in house WYATT, NHS England, HRA Regional pharmacy coordination NHSE

Q6. What are the key communication messages for?			
Patients	The public	Staff	Partners
Medical changes, reassurance Storage/ don't discard, repeat don't wait till the last minutes Look at usage Changing prescriptions - only prescribe what is needed Don't stock pile			

Q7. How will we manage the shortage of any medicines?	
Existing protocols	As Q5

Q8. How can you support procurement to understand what stocks and recent orders are critical?	
Critical list - clinical review Current stock Impact/ consequence Activity level and use (stock)	Alternatives Work with materials management - they will be able to identify the impact - CSU to discuss

Week average usage - delivery date What has been ordered and due to be delivered Patient list - activity Cancel or postpone? Redirect urgent products within Trust where over stocked Provide list for acute procedure stock required Cancel non-essential deliveries	Understand which stock has been destroyed Time critical procedures What is available escalated What stock do we have within Trust/ region Check store - average use CSU urgent supplies needed Consultant review of list Where else can we get catering from?

Q9. What is the impact of the cancellation of the procedures identified?	
Back log Loss of confidence = panic Breach in waiting time - financial impact Validate list (theatre) identify urgent cases - lead clinician to do Impact patient experience	not able to reschedule in 28 days? Special dispensation Theatre procedures will need to be relisted Catering - continue with minor procedures patients bring supplies in - cold only Patient upset/ clinical issues/ performance issues/ assessment of clinically re booking of cancelled patients

Q10. How will we coordinate the response to this event?	
Bronze/ Silver/ Gold Command in place Silver Command	

Q11. What are the key communication messages for?			
Patients	The public	Staff	Partners
Regular updates broadcasting Telephone/ SMS Letters Urgent attendance only We are working to understand issue	Local arrangements Bronze Command (CSU) Risk assessment essential services Internal comms Internally still working Safety	Actions taken Regular updates Press release	Data held Patient information shared - transfers CCG comms or behalf
Don't panic Ward walkers/ update meetings Comms - BBC Statement - newspapers Message still to come but expect delays and bring food WYATT Routine access to shared info will be limited No E-referrals/ email referrals Local systems at other Trusts would not be updated		Bed blocked Unable to admit/ discharge Full Review scale of issue - alternatives No access to system one, ppm, epro and ICE, emails Intranet comms Paper based - retrospective Fax Partners cut off to protect themselves Whatsapp app	

Q12. What is the impact on your service of having no internet connection?	
No out reach Blood results - phone through - urgent	consider reverting to paper if limited access Regional centres e.g. Path/Rad

MDT reporting 2 week waits?	Lack of email

Q13. What should we be doing now in anticipation of this type of incident?	
Awareness of Cyber security	Update contact list

Q14. What are the implications of this scenario?	
Inability to discharge Cancellations	Additional ED attendances Free up clinical staff to help bank staff for community

Q15. What actions can the Trust take?
City wide assessments of staffing Cancellation of non-essential work Part time staff increase full time

Q16. What are the concerns for winter and how do we mitigate these?
All of the above

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Date of exercise: 26th February 2019

Date of report: 28th February 2019

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