**Implementation tool for**

 **the NCEPOD report**

**‘A Balance Solution’**

Fishbone diagrams

Fishbone (or Ishikawa) diagrams are used to consider cause and effect. The starting point is a problem or incident and the diagram can help you to think about what contributed to it. All possible causes should be considered, not just the obvious or major ones.

We have provided some fishbone diagrams with issues that were identified during the study. Use any of these that are relevant to your organisation to start identifying possible causes. Major factors should go in the larger boxes at the end of the branches – more specific causes within those factors should go on the branches and you may even want to add contributing sub-branches. The diagrams we have provided are a starting point and should be adapted and expanded to fit your need. The final diagram is blank and can be copied or printed out blank for any additional issues you have identified.

This should be done as a multidisciplinary/team exercise to get different perspectives and as many potential causes as possible. Other quality improvement techniques, such as five whys and process mapping, could be used to help. We have included blank action plans for you to plan changes to practice and/or more quality improvement work.

Example:

No lead clinician

**A patient was not copied into an important correspondence**

Communication

Co-ordination

Lack of joint working between specialties

Patient’s details not known to healthcare professional

No policy in place

No executive board guidance

For more information on quality improvement please see the following sources or contact your local Quality Improvement department:

Health Foundation: <https://www.health.org.uk/resources-and-toolkits>

King’s Fund: <https://www.kingsfund.org.uk/topics/quality-improvement>

NHS Improvement: <https://www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2011/06/How-to-construct-a-fishbone-diagram.pdf>

**Contents**

1. Variation in the assessment and management of abnormal blood sodium levels
2. Inconsistent assessment of fluid status
3. Variation in the use and the dosing of hypertonic saline solution
4. Poor communication of medication changes to healthcare providers and patients
5. [Fishbone diagram – to be used for any locally identified issues](#Diagram7)

**1. Variation in the assessment and management of abnormal blood sodium levels**

Suggested questions to ask:

When was the first blood sodium measurement?

What investigations were undertaken?

Were urine/plasma osmolality measurements paired?

What time was a sample for cortisol taken?

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem identified** | **Action required** | **By when?** | **Lead** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**2. Inconsistent assessment of fluid status**

Suggested questions to ask:

Was an assessment of the patient’s fluid status made during the initial assessment?

How was the assessment made?

Were accurate fluid balance charts maintained?

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem identified** | **Action required** | **By when?** | **Lead** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**3. Variation in the use and the dosing of hypertonic saline solution**

Suggested questions to ask:

What was the severity of the patient’s hyponatraemia?

Did the patient have symptoms of hyponatraemic encephalopathy?

What concentration of hypertonic saline solution was used?

What type of ward was the patient on during treatment with hypertonic saline solution?

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem identified** | **Action required** | **By when?** | **Lead** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Poor communication of medication changes to healthcare providers and patients**

Suggested questions to ask:

Did the patient have a comprehensive medication review?

Were any medication changes made?

Were changes communicated to the patient’s family/carer and GP?

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem identified** | **Action required** | **By when?** | **Lead** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**5.**

Suggested questions to ask:

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem identified** | **Action required** | **By when?** | **Lead** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |