National Perinatal Mortality Review Tool



Learning from Standardised Reviews When Babies Die

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Third Annual Report



October 2021



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Foreword

We welcome the PMRT's third annual report which shows there have been modest improvements in the way hospital reviews have been undertaken across the UK over the 12-month period spanning the pandemic. These improvements have been made against the backdrop of extreme pressures on the NHS during an unprecedented global health crisis.

The emergence of Covid-19 has compounded an already unequal picture in maternity. The evidence increasingly suggests that the virus is likely to hit those families who are also most at risk of poor outcomes in maternity hardest, yet again highlighting the UK's stark health inequalities. Stillbirth rates for Black/ Black British babies remain twice as high, and for Asian/Asian British babies 1.6 times as high, compared to White babies. For babies from the most deprived families, stillbirth rates are 1.7 times higher than from the least deprived families.

While progress has been made in reducing the number of baby deaths in the UK, 14 babies still die every day, and many of these deaths remain potentially preventable. Robust implementation of the PMRT is key in addressing this. It will answer parents' questions about why their baby died whilst also helping to identify where lessons need to be learned to save future lives.

However, this third report highlights the same issues with gaps in care that have already been raised by previous PMRT reports and by several confidential enquiries. It therefore begs question: what now needs to change?

We believe listening to parents is crucial to improving safety. Giving parents the opportunity to engage in the review of their care will not only support them in the grieving process, but evidence shows it will also improve the focus and quality of the review itself. As witnesses to their own care, parents and their narratives are an essential part of understanding the whole picture.

While this year the PMRT reports that more parents are told about review (90% compared to 84% in the previous report) and fewer raise concerns about their care, questions remain around whether the care reported by health professionals as being delivered is indeed the care experienced by parents themselves.

A recent Sands survey of bereaved parents whose baby died between 2019 and 2021, indicates that only 63% of parents were told about review, and 1 in 5 were not entirely clear what 'review' meant. Furthermore, although the majority of parents in our survey who were informed about a review were also asked if they would like the review to address any questions or concerns, 1 in 3 parents said they did not feel entirely listened to.

Another significant stumbling block to using the PMRT to improve lessons learnt is the fact that 1 in 7 reviews in this report are carried out by only one or two people. This latest annual report shows a possible correlation between the improvements in the number of external reviewers that units are using for their reviews, and an increase in the number of reviews identifying poor care. An external reviewer may, it appears, improve a hospital's ability to self-examine its care and learn lessons. Importantly, it will also improve parents' confidence in the process.

But, as this and previous reports have shown, implementing both these and other elements of the tool requires adequate resourcing, administrative support, and protected staff time. Sands believes there must be ring-fenced funding to secure staff training and time to support parents throughout the review, to release staff to participate in hospital reviews, and to resource the presence of an independent reviewer at every review meeting.

With this support in place the PMRT has the potential to prevent further harm to bereaved parents, whose search for answers about why their baby died may be life-long, and the power to make care safer for future families and reduce inequalities.

In the words of two bereaved mothers:

"It was nice to see changes that have been put in place following my son's death and how the hospitals are going to link together better. They picked this up to be a bigger issue than I did...."

"We felt we had enough time to discuss our son's death and they explained what had happened in detail while being as sympathetic as possible."

Clea Harmer Chief Executive, Sands

All the reviews reported in this, the third national PMRT annual report, were carried out from the start of the SARS-CoV-2 global pandemic and is the probable explanation as to why there have only been modest improvements in the use of the tool. Nevertheless, the value of reflecting on these findings in this report comes from identifying where things have improved and where improvements still need to be made.

Review of care when a baby dies should be a routine part of maternity and neonatal care. Importantly the process needs to be resourced adequately to ensure that high quality and cost-effective reviews are carried out. Resourcing involves including time in job plans for consultants and prioritising the time of other staff to participate. One notable improvement during this period was the increase in the proportion of reviews of neonatal deaths which involved a neonatologist and/or a neonatal nurse. The continued involvement of members of governance/risk teams and of service managers in the process of review is also a positive development. This increases the probability that the action plans developed as a consequence of review will be translated into quality improvement activities and clinical practice. More concerning is the fact that in the vast majority of instances Trusts and Health Boards do not provide appropriate administrative support to reduce the burden of routines tasks for other staff carrying out reviews.

There have only been modest shifts in the holistic grading of care suggesting that either the discipline of robust self-examination is still not wholly embedded in many units or care has already improved significantly. Evidence against the latter comes from the modest, but important, impact of the presence of a professional external to the Trust/Health Board on the grading of care, suggesting that they may strengthen the quality of critical reflections of the care during the process of review. This clearly requires the sharing of resources between Trusts and Health Boards and again needs to be appropriately resourced by the inclusion of this important work in job plans. This will ensure that more parents and families benefit from reviews conducted by groups including the fresh independent eyes provided by external members.

The quality of the action plans developed following reviews also remains of concern with a continued focus on actions in relation to individuals rather than system level changes designed to reduce the capacity for human error.

Supporting parents and families through the review process and other aspects of bereavement needs to be prioritised. Meaningful engagement with parents and families improves the quality of their review from which they will benefit directly. However, it also improves the potential for wider lessons to be learned and the prevention of deaths where service improvements are instigated as a consequence of high quality review.

Local reviews using the PMRT are particularly important for the 92% of baby deaths which will not benefit from a review by other organisations such as the Healthcare Safety Investigation Branch who investigate about 8% of the deaths in England eligible for a PMRT review. Child Death Overview Panels (CDOP) in England review all neonatal deaths and use, as the fundamental basis of their discussions, the local review conducted by the hospital team, which the CDOPs require to be carried out using the PMRT.

The issues with care identified in this report are largely focused around the same areas as in previous reports. This national report alongside the local summary reports, which can be generated from the PMRT, provide the basis for prioritisation of local service improvement activities.

It remains the case that the PMRT is only a tool, and will therefore, only be as good as the information recorded in it, and the way in which it is used. If the PMRT is to achieve the original vision set out by the Sands/Department of Health Task and Finish Group in 2012, it is the responsibility of Trusts and Health Boards to improve the way in which it is supported, resourced and implemented.

The recommendations from this reports are:

1) Provide adequate resourcing of multidisciplinary PMRT review teams, including administrative support and ensure the involvement of independent external members in the team.

Action: Trusts and Health Boards, regional/network support systems and organisations, Service Commissioners

2) Use the PMRT parent engagement materials to support engaging parents and families in the review process, including them being made aware a review is taking place and being given flexible opportunities at different stages to discuss their views, ask questions and express any concerns. Many parents may want to give positive feedback about the care they received.

Action: Trusts and Health Boards, staff caring for bereaved parents, Service Commissioners

3) Use the local PMRT summary reports and this national report as the basis to prioritise resources for key aspects of care and quality improvement activities identified as requiring action.

Action: Trusts and Health Boards, Service Commissioners, regional/network support systems, Governments

4) Improve the quality of recommendations developed as a consequence of reviews by developing actions targeted at system level changes and audit their implementation and impact.

Action: PMRT review teams, governance teams in Trusts and Health Boards, Service Commis sioners

Learning from Standardised Reviews When Babies Die – 2020 Annual Report

Key Messages – October 2021

Since the launch of the national Perinatal Mortality Tool (PMRT) in early 2018 over 14,000 reviews have been started. This third annual report presents the findings for reviews completed from March 2020 to February 2021 coinciding with the first year of the SARS-CoV-2 global pandemic. Here are the key messages from the 3,981 reviews completed during this period.

Supporting high quality local perinatal reviews



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Glossary

ARM	Artificial Rupture of Membranes – breaking the waters
CDOP	Child Death Overview Panel (England)
CTG	Cardiotocograph
DH	Department of Health
DNA	Did not attend (appointment)
EPR	Electronic Patient Record
FIGO	International Federation of Gynecology and Obstetrics
GDM	Gestational diabetes mellitus
NCMD	National Child Mortality Database
NPSA	National Patient Safety Authority
MBRRACE-UK	The collaboration established to deliver the MNI-CORP
MNI-CORP	Maternal, Newborn and Infant Clinical Outcome Review Programme
MSU	Mid-stream sample of urine
PMRT	Perinatal Mortality Review Tool
Sands	Stillbirth and neonatal death charity

The national Perinatal Mortality Review Tool (PMRT) was launched in January 2018. Implementation was rapid in England, Wales and Scotland during 2018 and the tool was subsequently adopted in Northern Ireland in autumn 2019.

The design of the tool places at its core the fundamental aim of supporting objective, robust and standardised review to provide answers for bereaved parents and their families about why their baby died. A second, but nonetheless important, aim is to ensure local and national learning occurs as a consequence of review findings in order to improve care and ultimately prevent future baby deaths.

Unlike other review or investigation processes, the PMRT makes it possible to review every baby death, after 22 weeks' gestation, including late miscarriages, stillbirths and neonatal deaths, and not just a particular group of deaths. For about 92% of parents the PMRT review process is likely to be the only review of their baby's death they will receive.

This third annual report builds on previous annual reports and presents an analysis of reviews carried out from March 2020 to February 2021. Of note the PMRT was adapted in mid-2020 to enable the impact of the SARS-CoV-2 global pandemic on care to be specifically reflected in reviews.

An accompanying technical paper details the process of development of the PMRT, aspects of how it is used and the relevant approvals needed in relation to the data collected.

www.npeu.ox.ac.uk/pmrt/reports

2. Findings

This report presents findings from the 3,981 reviews which were completed between March 2020 and February 2021 and follows on from the PMRT second annual report.

Tables of the findings presented here are available in a separate accompanying report.

www.npeu.ox.ac.uk/pmrt/reports

Since it was launched all Trusts and Health Boards across England, Wales, Scotland and Northern Ireland have engaged with the PMRT over 14,000 reviews had been started and/or completed using the tool. During the period March 2020 to February 2021 a review of care was started for an estimated 90% of all babies who died in the perinatal period comprising 89% of stillborn babies and those who died in the late second trimester, and 93% of babies who died in the neonatal period. The proportion of deaths reviewed has increased since the launch of the tool (Tables 1.1 to 1.4).



Proportion of deaths with review started from 2018 to 2020

2.1 Multidisciplinary review

It is essential that the review process is appropriately multidisciplinary to reflect the mix of professionals caring for mothers, babies and their families, and recommendations regarding the constitution of PMRT review groups are available on the PMRT website and in Appendix B.

Although increased from earlier years the majority of reviews (61%) continue to be carried out by groups that do not include at least the minimum recommended number of staff fulfilling appropriate roles (Table 1.5).

Again although an improvement from the earlier one in five; nevertheless, about one in seven of the reviews were reported as being carried out by only one or two individuals. This does not constitute a robust multidisciplinary review process.

The involvement of a relevant professional, who is external to the Trust or Health Board, as part of the PMRT review team is also recommended. In this period 21% of reviews, compared with 19% previously, involved an external member (Table 1.6). This represents only a small improvement and the vast majority of reviews still did not involve someone, who can provide a 'fresh eyes' independent perspective to the review of care provided, as recommended by the Kirkup Inquiry [1].

The proportion of reviews with administrative support increased from 18% in the previous report to 22%. Just less than four in five reviews nevertheless appear to lack this type of support which is vital to ensure timely reviews with all the relevant information available are carried out in the most cost-effective way.

Whilst a member of the local governance/risk management team (71%) and/or a service manager (34%) was present, this represents a reduction from the previous annual report period of 92% and 40% respectively. These members of the team



Proportion of reviews with at least the minimum number of staff fulfilling appropriate roles



Proportion of reviews with an external member in the review team



Proportion of reviews with administrative support, governance/risk management team and service manager members have the vital role of ensuring that the process of review, the findings and actions are embedded in the safety and service improvement culture of the trust/health board and should form part of the review team.

On a more positive note an increasing proportion of reviews of neonatal deaths were conducted by review groups which included a neonatologist at 59%, 71% and 81%, from the first to the third annual report periods respectively.

2.2 Parent engagement

It was reported that overall 90% of parents had been told that a review of their care and that of their baby would be carried out (Table 1.8). While this represents an improvement from 84% in the previous report and is a considerable improvement compared with MBRRACE-UK Perinatal Confidential Enquiries [2] and the Each Baby Counts project [3] it is nevertheless concerning that not all parents for whom a review was conducted were told that a review would take place and for this to be recorded in the PMRT.

Two fifths of parents were reported to have indicated they had no questions or concerns about their care they wanted their review to address. This was an increase from a quarter in the previous year.

As in the previous annual reports just over half of parents comments related to management plans and the care received (Table 1.9). Poor communication was mentioned in an increasing proportion of parents' questions over the three annual reports: 5%, 9% and 16% respectively over subsequent years. Questions and concerns about technical aspects of care, for example the frequency and quality of scans, were also mentioned in an increasing proportion of comments over the three reports: 5%, 4% and 16% respectively. Around one in 10 parents said they did not feel listened to.

The PMRT 'Parent Engagement' materials [4] were available throughout the period covered by this report. However, it is not possible to assess from the information available from the PMRT reviews what impact these material have had on the quality of engagement with parents. Importantly the PARENTs study has shown that the more meaningful the engagement the more likely that important lessons for care will be identified in the review [5-7].

2.3 Issues with care identified

Overall 97% of reviews identified at least one issue with care, with an average of four issues per death reviewed increasing to five issues per death where the baby was born at term (Table 2.2). This represents a slight increase from 93% in the previous annual report period. Importantly, not all issues identified were deemed relevant to the outcome for that specific baby by the review team.

Issues with care relevant to the outcome nevertheless affected many aspects of care throughout the maternity and neonatal pathway. Issues were also identified at all stages of care regardless of the type of death, for example there were issues



Proportion of reviews of neonatal deaths with a neonatal nurse present



Proportion of reviews of neonatal deaths with a neonatologist present



Parents' comments, questions and concerns about their care and that of their baby

with care during labour and birth for both intrapartum deaths and deaths which occurred at other stages of pregnancy and postnatally.

i) Antenatal care

The reviews highlighted particular issues with antenatal care (Table 2.3) with the five most commonly issues identified being:

- Inadequate fetal growth surveillance;
- · Delay in management of significant antenatal problems;
- Inadequate investigation or management of reduced fetal movements.
- Lack of smoking assessment and management of exposure to tobacco smoke;
- Failure to assess the need for and management of aspirin requirements.

These remain the same five issues most commonly identified in reviews reported in the two previous annual reports with only smoking and aspirin assessment being slightly less common in this third annual report period.

Inadequate fetal growth surveillance, identified as relevant to the death in 9% of deaths reviewed, remains the most common single issue identified as relevant to the death. Inadequate investigation or management of reduced fetal movement, identified as relevant to the death in 8% of deaths, remains the second most common single issue identified as relevant to the death.

ii) Intrapartum care

Review of the care during labour, birth and shortly after birth (Table 2.4) identified issues with the following six main areas:

- Fetal monitoring in labour;
- · Staffing levels;
- Lack of maternal risk assessment or inadequate management based on the risk assessment at the start of care or during the course of her labour;
- Monitoring of the mother in labour;
- Mode of birth decisions (type, timing and management);
- Inappropriate location of birth.

These remain the same six issues most commonly identified in reviews reported in the two previous annual reports with only maternal monitoring being identified slightly less frequently. Fetal monitoring issues, identified as relevant to the death in 4% of deaths reviewed, remains the single most common single issue identified as relevant to the death, regardless of when the baby died.



Antenatal care issues identified as relevant to the death



Intrapartum care issues identified as relevant to the death

iii) Neonatal and end of life care

During neonatal care the need to improve documentation, particularly in relation to resuscitation of the baby, was once again highlighted in this report as an issue with care, with this issue identified as relevant to the death in 35% of the deaths reviewed (Table 2.5). A requirement to optimise thermal management at all stages of neonatal care, but particularly during transfer to the neonatal unit or to other locations, was also highlighted again, and was identified as relevant to the death in 31% of reviews. Issues with respiratory management during resuscitation and cardiovascular management on the neonatal unit were also highlighted although these issues were identified in the reviews as relevant to the death in less than 1% of instances.

There were few issues identified with end of life care (Tables 2.6 and 2.7). Of note the possibility of organ donation was not discussed despite there being no contraindications was identified in 16% of reviews. For the same proportion the possibility of having a post-mortem was also not discussed with the parents and family prior to the baby's death.

iv) Bereavement care

A specific set of questions about bereavement care were introduced into the PMRT in July 2020. This is the first annual report, therefore, to present the issues relating to the quality of bereavement care, which has the potential to impact the psychosocial wellbeing of the parents and other family members in the weeks, months and years to come.

The five main issues with bereavement care (Table 2.8) which were identified during the reviews from this period were:

- A policy, support and practical help were not available to enable parents to take their baby home for a time after the baby had died;
- There was inadequate documentation in the notes concerning discussions about taking the baby home;
- There was inadequate documentation in the notes concerning discussions about access to a cold/cool cotⁱ;
- The location and quality of the bereavement suite were inadequate;
- Inadequate documentation regarding transfer to mortuary care.

Embedding the National Bereavement Care Pathway [8] will support Trusts and Health Boards in these and all other aspects of good quality bereavement care for parents and families.



Issues with documentation of neonatal care



Temperature control management issues during neonatal care



Bereavement care issues

A cold/cool cot is a cot which is kept cold or cool to preserve the baby's body, so that bereaved parents can keep their baby in their room with them or take their baby home for a while. Many parents find it comforting to be with their baby.

accessed maternity care, but this was only highlighted in 5% of the reviews carried out since these new questions and issues were added. Questions about possible domestic abuse not

delivery of booking care was

Impact of the SARS-CoV-2 global

A small set of new questions were added to the PMRT in July

2020 along with the addition of specific issues for existing questions to enable review teams to identify aspects of care which

were impacted by the circumstances and changes to care as

Relatively few issues relating to the impact of the pandemic were identified at review (Table 2.9). The most common issue

identified was that the pandemic had affected how women

pandemic on care

being asked due the remote

identified in 3% of reviews.

a result of the SARS-CoV-2 global pandemic.

V)

Bereavement care was identified as having been adversely affected by the pandemic for 4% of deaths with the location and quality of bereavement care having been affected in 2% and the opportunity to take their baby home not being available also for 2% of deaths.

2.4 Overall grading of care

At the end of each review the review group is required to provide a holistic grading of the care provided at each stage of the care pathway. For 55% of stillbirths and late miscarriage the grading indicated that there were no issues with care during pregnancy, labour and birth (Table 2.10). For a further 28% issues were identified which would have had no effect on the outcome and in 17% of reviews there were issues identified that may or would have made a difference to the outcome. These figures were effectively unchanged from the findings in the previous annual report. The respective proportions for neonatal deaths including neonatal care were 42%, 42% and 16% (Table 2.13). These percentages represent a modest shift from the first annual report with an increase from 12% to 16% in the proportion of issues that may or would have made a difference to the outcome.

There were no issues with bereavement care identified for about 80% of late miscarriages, stillbirths and neonatal deaths (Tables 2.14 & 2.15).

This suggests that despite identifying issues with care for 97% of deaths, in the vast majority of instances the multidisciplinary review teams concluded that the majority of deaths occurred despite care that was overall deemed appropriate. There was also little shift in the proportions from the period of the last annual report. These figures contrast with those from recent MBRRACE-UK confidential enquiries and the Each Baby Counts project where a greater proportion of deaths were identified as having issues with care identified which may have a made a difference to the outcome, accepting that a specific group of deaths were reviewed in the latter two programmes using different methodologies of review.

When a relevant professional external to the Trust or Health Board was present as part of the PMRT review team a greater proportion of reviews of the care during pregnancy, labour



Impact of the SARS-CoV-2 global pandemic on care



Grading of pregnancy, labour and birth care for late miscarriages and stillbirths



Most serious grading of pregnancy, labour, birth and neonatal care for neonatal deaths



Grading of bereavement care for late miscarriages and stillbirths

and birth were identified as having issues which may or were likely to have made a difference to the outcome: 23% with the external present versus 16% when an external member was not present for stillbirths and late miscarriages, and 17% versus 9% respectively for neonatal deaths. Whereas the presence of an external member had little impact on the grading of bereavement care. This suggests that the presence of an external professional encourages increasingly robust self-examination of the care provided. Although it may also be the case that external members are more likely to be involved where issues with care are anticipated.

2.5 Contributory factors

The majority of factors contributing to the issues identified with care fell into four of the National Patient Safety Agency (NPSA) level 1 contributory factors (Table 2.16). These were task factors (29%) primarily related to a failure to follow or an absence of guidelines, policies and procedures; patient factors (22%) with the clinical condition of the mother and/or baby most commonly identified; communication problems (19%); and organisational structures (16%). Communication issues in particular predominated in all categories of contributory factors for all aspects of neonatal care from resuscitation through to end of life care.

2.6 Action plans

Across the 3,981 reviews a total of 17,429 issues were identified which represents an increase of about 20% on the number of issues identified in the previous annual report period. Overall a total of 21,069 factors contributing to the outcomes were identified (Table 2.17). Of these a total of 2,744 (13%) were indicated as factors relevant to the outcome and required action to improve future care. A further 5,805 (28%) factors were not relevant to the outcome for the baby but nevertheless required action to improve future care.

Findings from a sample of action plans were reviewed and coded according to action strength using the US Veterans Affairs definitions where the strength of an action describes how well the action would eliminate human error [9]. Strong actions are system changes which remove the reliance on individuals to choose the correct action. They use standardisation and permanent physical or digital designs to eliminate human error and are sometime referred to as 'forcing' actions."

Only 5% of the actions planned were identified as 'strong'. There remains a consistent focus on modifying the actions of individuals through training and communications to staff rather than introducing systems and processes focused on 'strong' changes with 'forcing' features which remove a reliance on individuals to choose the correct action, and places greater emphasis on system-wide improvements.

ii The strength of an action describes how well the action would eliminate human error. Strong actions are system changes which remove the reliance on individuals to choose the correct action. They use standardisation and permanent physical or digital designs to eliminate human error and are sometime referred to as 'forcing' actions [9].



Grading of bereavement care for neonatal deaths



Level 1 National Patient Safety Agency contributory factors



Strengthⁱⁱ of action plans

Weak

"Distribute communication to maternity staff regarding the necessity for intrapartum antibiotics in preterm labour and the importance of this."

A reminder for individual action without any controls

Intermediate

"Major review which led to a new staffing model and a newly appointed Lead for Triage and Induction." A new system in place but may still require

individuals to act without any controls

Strong

"Process for assessing need for aspirin developed and implemented via EPR" A system level electronic design to eliminate human error

Examples of strengthⁱⁱ of actions planned

3. Conclusions

All the reviews reported here were carried out during the period from the start of the SARS-CoV-2 global pandemic. The pandemic is expected to have had an impact on the delivery of care and also on the capacity of hospital staff to spend time reviewing deaths. This most likely explains why only relatively modest changes in the use of the tool are seen overall compared with the findings in the previous annual reports. Nevertheless, as efforts are made to return services back to normal it is worth reflecting on where things have improved and where improvements still need to be made.

Whilst this may not have been fully possible at the height of the pandemic, review of care when a baby dies should be universally regarded as a part of routine maternity and neonatal care, and must be resourced adequately to ensure that high quality reviews are conducted in the most cost-effective way. This means including time in job plans for consultants and prioritising the time required by other staff to participate in reviews. An indicative level of review team resourcing is given in Appendix A. There is evidence of an impact of the involvement of an appropriate professional external to the Trust/Health Board on the grading of care, suggesting that they may strengthen the quality of the critical reflections on the care provided when a death has occurred. This clearly requires the sharing of resources between Trusts and Health Boards and needs to be resourced by the inclusion of this important work in job plans. A recommended composition of the review team is given in Appendix B.

Incremental improvements are still required to ensure that more parents benefit from reviews conducted by groups including the fresh independent eyes provided by external members [1]. This is particularly important for the reviews of those 92% of deaths which will not benefit from a review by other organisations such as the Healthcare Safety Investigation Branch who investigate about 8% of the deaths in England for which a PMRT review could be undertaken. Child Death Overview Panels (CDOP) in England review all neonatal deaths and use, as the fundamental basis of their discussions, the local review conducted by the hospital team, which the CDOPs require to be carried out using the PMRT.

Resourcing is also required to support the review process and it remains disappointing that in the vast majority of instances, Trusts and Health Boards do not provide the appropriate administrative support, to reduce the burden of routine tasks for other staff carrying out reviews. One notable improvement is the increase in the proportion of neonatal deaths where a neonatologist and/or a neonatal nurse is involved in the review; this has increased from less than 25% to over 80% over the three-year period for neonatologist and from less than 10% to 46% for neonatal nurses.

There have only been modest shifts in the holistic grading of care suggesting that the discipline of robust self-examination is still not wholly embedded in many units. The continued involvement of members of governance/risk teams and of service managers in the process of review is a positive development as it is likely to increase the chances that the action plans developed by the review group will be translated into quality improvement activities and clinical practice.

Supporting parents through the review and other aspects of bereavement needs to be prioritised. There is evidence from the PARENTs [5-7] study that meaningful engagement with parents and families improves the review process and the potential for lessons to be learned. A recent Sands survey reports that parents who are given the opportunity to ask questions and express their concerns about their care, are mostly likely to express satisfaction with the review process. Meaningful engagement with parents and families not only benefits bereaved parents themselves, but may prevent future deaths where service improvements are instigated as a consequence of high quality reviews.

The issues identified in this report are largely focused around the same areas of care as in previous reports. This report alongside the local summary reports, which can be generated from the PMRT, provide the basis of prioritisation of local service improvement activities which in England should also be guided by the Saving Babies Lives Care Bundle version 2.

The strength of action plans developed follow reviews remains of concern with a continued focus on relatively weak actions focusing on the actions of individuals rather than 'strong', system level actions designed to reduce human error and to remove the need for individuals to remember what to do in all situations [9].

It remains the case that the PMRT is only a tool, and will therefore, only be as good as the information that is recorded in it, and the way in which it is used. If it is to achieve the original vision set out by the Sands/ Department of Health Task and Finish Group in 2012, it is up to Trusts and Health Boards to improve the way the PMRT is supported, resourced and implemented.

4. Recommendations

1) Provide adequate resourcing of multidisciplinary PMRT review teams, including administrative support and ensure the involvement of independent external members in the team.

Action: Trusts and Health Boards, regional/network support systems and organisations, Service Commissioners

2) Use the PMRT parent engagement materials to support engaging parents and families in the review process, including them being made aware a review is taking place and being given flexible opportunities at different stages to discuss their views, ask questions and express any concerns. Many parents may want to give positive feedback about the care they received.

Action: Trusts and Health Boards, staff caring for bereaved parents, Service Commissioners

3) Use the local PMRT summary reports and this national report as the basis to prioritise resources for key aspects of care and quality improvement activities identified as requiring action.

Action: Trusts and Health Boards, Service Commissioners, regional/network support systems, Governments

4) Improve the quality of recommendations developed as a consequence of reviews by developing actions targeted at system level changes and audit their implementation and impact.

Action: PMRT review teams, governance teams in Trusts and Health Boards, Service Commis sioners

5. References

- 1. Kirkup B. The Report of the Morecambe Bay Investigation. London: The Stationery Office. 2015 *The Report of the Morecambe Bay Investigation (publishing.service.gov.uk)* (accessed 3rd September 2021)
- 2. MBRRACE-UK Perinatal Confidential Enquiries. www.npeu.ox.ac.uk/mbrrace-uk/reports/perinatalmortality-and-morbidity-confidential-enquiries (accessed 3rd September 2021)
- 3. Each Baby Counts Project. *www.rcog.org.uk/eachbabycounts* (accessed 3rd September 2021)
- 4. PMRT parent engagement materials. *www.npeu.ox.ac.uk/pmrt/parent-engagement-materials* (accessed 3rd September 2021)
- 5. Bakhbakhi D, Burden C, Storey C, Heazell AE, Lynch M, et al. PARENTS 2 Study: a qualitative study of the views of healthcare professionals and stakeholders on parental engagement in the perinatal mortality review - from 'bottom of the pile' to joint learning. BMJ Open 2019 Feb 22;8(11):e023792. doi: 10.1136/bmjopen-2018-023792.
- 6. Bakhbakhi D, Siassako D, Lynch M, Timlin L, Storey C et al Parents Collaborative Group. PARENTS 2 study: consensus report for parental engagement in the perinatal mortality review process. Ultrasound Obstet Gynecol. 2019 Aug;54(2):215-224. doi: 10.1002/uog.20139.
- 7. Burden C, Bakhbakhi D, Heazell AE, Lynch M, Timlin L et al. Parents' Active Role and ENgagement in The review of their Stillbirth/perinatal death 2 (PARENTS 2) study: a mixed-methods study of implementation. BMJ Open. 2021 Mar 16;11(3):e044563. doi: 10.1136/bmjopen-2020-044563.
- 8. National Bereavement Care Pathway. *NBCP update 21 July 2021* | *National Bereavement Care Pathway (NBCP) (nbcpathway.org.uk)* (accessed 3rd September 2021)
- US Department of Veterans Affairs. Root Cause Analysis Tools. VA National Center for Patient Safety. REV.02.26.2015.(Pgs26-29) RCA Step by Step Guide REV 07.01.2016 (va.gov) (accessed 3rd September 2021)

Appendix A - Indicative level of review team resourcing

Example for 10 deaths per month

Person time required per week:

- 2PA*'s consultant obstetrician
- 12 hours midwife time
- 1PA* consultant neonatologist
- 5 hours neonatal nurse time
- 2 days of clerical support

*PA – programmed activity which is the metric used to describe consultant time

Appendix B - Recommended composition of a PMRT review team



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