Death Certification Review Service

Annual Report 2018–2019
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About the Death Certification Review Service

The Death Certification Review Service (the service) was established in 2015 to fulfil the legislative requirements within the Certification of Death (Scotland) Act 2011 (the Act)\(^1\).

Our aim is to improve the:
- quality and accuracy of Medical Certificates of Cause of Death (MCCD)\(^2\)
- public health information about causes of death in Scotland, and
- clinical governance issues identified during the death certification review process.

To achieve this we:
- review approximately 14% of randomly selected MCCDs before registration of the death can take place (standard case\(^4\))
- where appropriate, approve requests allowing families to make funeral arrangements whilst the review is still being processed (advance registration)
- help families who believe the cause of death detailed on the MCCD is inaccurate by carrying out a review at their request (interested person review)
- work collaboratively with National Records of Scotland\(^5\) and registrars of births, deaths and marriages to review MCCDs that are not randomly selected for review but where the registrar has concerns the MCCD may not have been completed correctly (registrar referral)
- provide educational support to certifying doctors by reviewing the next 6–10 MCCDs they write (‘for cause’ review), and
- administer and authorise the burial and cremation of people who have died outside the UK and are returned to Scotland for funeral (repatriation).

The service does not review:
- the quality of care provided to the deceased prior to their death, and
- suspicious deaths or deaths that should be reported to the Procurator Fiscal under the Inquiries into Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016\(^6\).

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\(^2\) The MCCD provides a permanent legal record of the death, records information about the death (including the cause of death) and allows the death to be registered.

\(^3\) MCCDs are randomly selected for review by National Records of Scotland using an algorithm that selects approx 10% of MCCDs for a Level 1 review and the remainder receive a Level 2 review.

\(^4\) Information on standard cases, advance registrations, registrar referrals, ‘for cause’ reviews and repatriations can be found in the report’s ‘Our findings’ section.

\(^5\) [https://www.nrscotland.gov.uk/registration](https://www.nrscotland.gov.uk/registration)

The review process

The majority of MCCDs are randomly selected for review by National Records of Scotland using an algorithm that selects 10% of MCCDs for a Level 1 review, the remainder of cases receive a Level 2 review.

The MCCD is reviewed by one of our team of 11 trained and experienced medical reviewers who are all doctors from general practice, hospital, hospice or public health backgrounds.

The review is split into three parts.

1. **Initial checks** which include a review of the:
   - confirmation of the patient’s Community Health Index (CHI) number
   - certifying doctor’s entry on the General Medical Council (GMC) register
   - patient Emergency Care Summary (ECS)
   - MCCD for any incorrect or missing information or spelling errors, and
   - deceased’s medical records and Key Information Summary (Level 2 reviews only).

2. **Educational discussion** to support awareness and improvement. This involves a direct discussion with the certifying doctor and includes a review of:
   - the deceased’s medical history and the cause of death
   - any underlying illnesses that contributed to the death, including public health data around smoking, drug or alcohol misuse and obesity
   - whether the deceased had a pacemaker, infectious disease or any implants made of radioactive material that could be hazardous to the public, and
   - whether the death should have been reported to the Procurator Fiscal.

3. **Review outcome** where the medical reviewer will confirm if the MCCD is:
   - in order (no changes required to the MCCD)
   - ‘not in order’ (the MCCD requires to be amended or replaced), and
   - reportable to the Procurator Fiscal.

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7 Level 1 reviews consist of a review of the MCCD in conjunction with a review of the patient Emergency Care Summary (ECS) medicines only. The review should be completed within 24 hours.

8 Level 2 reviews consist of a review of the MCCD in conjunction with a review of the patient’s medical notes, Emergency Care Summary (ECS) and Key Information Summary (KIS). The review should be completed within 3 working days.

9 Details of cases required to be reported to the Procurator Fiscal can be found on the Crown Office and Procurator Fiscal office website: [www.copfs.gov.uk/publications/deaths](http://www.copfs.gov.uk/publications/deaths).
I am pleased to present my fourth annual report, to reflect on what has been achieved over the past year, and consider what might have gone better or been done differently.

While producing this report is an annual statutory requirement, I have changed the format to make it a little ‘snappier’ and more accessible for anyone with an interest in our work.

Here is my overview of 2018-19. The ‘Our findings’ section provides a more detailed analysis and if you are interested in the actual figures, please head to Appendix 1.

**We said we would...**

**Continue to effect improvement on the ‘not in order’ rate**

The run chart analysis in Chart 9, shows the ‘not in order’ rate has reduced by over a third from 44% to 27.6% since the service was established in 2015. There is a sign of further improvement from October 2018.

Service level agreement targets have also been met, with 96% of Level 1 reviews and 98% of Level 2 reviews completed within service level agreement timescales. Further to this, most (72%) of Level 1 reviews are completed within 4 hours and 73% of Level 2 reviews are completed within one working day.

We have continued to provide educational support to NHS boards and meet with them every six months to review performance and share examples of good practice.

The DCRS Management Board discussed a new approach to identify doctors with a high or increasing number of errors in their certificates (‘for cause’ reviews). However, it was agreed our educative approach continues to effect improvement and it was decided this would be reconsidered in 12 months.

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10 Service level agreement timescales are 1 working day for Level 1, 3 working days for Level 2, and 5 working days for repatriation cases.

11 ‘For cause’ reviews may be activated by the medical reviewer or the senior medical reviewer. A prospective review of the next 6–10 MCCDs will be carried out in agreement with the certifying doctor and supervising consultant or medical director to support improvements in the areas highlighted to the doctor.
Investigate wider trends and themes analysis

With the help of the Healthcare Improvement Scotland Data Measurement and Business Intelligence unit and Information Services Division Scotland (ISD), we continue to produce 6-monthly data comparison and hospital breakdown reports for all NHS boards. We also participate in the national sharing intelligence programme.

Promote use of (electronic) eMCCD

Whilst the full rollout to eMCCD has still to happen, the percentage of MCCDs produced electronically in primary care has increased by 20.7%. This is of great benefit to families who are bereaved, as their review is likely to be completed before they attend to register the death. The required software to extend eMCCD to secondary care has been successfully developed. It is anticipated this will be implemented later in 2019.

We continue to promote the benefits of eMCCD and have worked closely with NHS Education for Scotland to produce educational materials including a conference poster that was accepted for the national NHS Scotland 2019 event.

Continue service delivery in the absence of Senior Medical Reviewer

The role of Acting Senior Medical Reviewer has continued effectively throughout the year. A recent external review by Dr Michael Winter, Medical Director, Procurement Commissioning and Facilities, NHS National Services Scotland has recommended the need for this position and it is hoped a permanent appointment of a Deputy Senior Medical Reviewer will be possible in due course.

Monitor the service workload

Monitoring of the service workload has continued throughout the peaks and troughs of demand. We receive around 200 calls to our enquiry line each month and demand has increased by 19.4% on the previous year. Feedback from certifying doctors has highlighted this aspect of our service as extremely valuable in supporting them to accurately complete MCCDs.

An additional medical reviewer was appointed in November 2018 in preparation for the rollout of eMCCD in secondary care.

Liaise with the Scottish Fatalities Investigation Unit around Fatal Accident Inquiries

Following the implementation of the Inquiries into Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016, the service has developed a standard operating procedure with the Scottish Fatalities Investigation Unit of the Crown Office and Procurator Fiscal Service. The extended role of the Procurator Fiscal now includes discretionary Fatal Accident Inquiries of those normally resident in Scotland who have died overseas. The first cases have been reported to the Unit using this mechanism.

Section 19 of the Act relates to post-mortem examination of a person who died outwith the UK where “no cause of death is available”.

Although that definition would seem straightforward, there have been a very small number (typically around two a year) where the cause of death has not been available at that time. This has been where a full forensic autopsy has been conducted in the jurisdiction where death occurred but results of additional further testing are not yet complete.

In these instances, where relatives had concerns about possible criminality, a cause of death did subsequently become available but despite the service amending processes to positively consider such applications as sensitively and flexibly as possible, we have attracted some criticism.

The introduction of the Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016, gives power to the Procurator Fiscal to now look into such deaths and determine whether a Fatal Accident Inquiry should be instigated.

It is now unlikely the service will be involved in similar future cases where we could be asked to sanction a post-mortem examination.

I am pleased to report the arrangement between the service and the Scottish Fatalities Investigation Unit is functioning satisfactorily. Last year we had the first forensic autopsy. This involved two doctors due to the need for corroboration in Scots Law.

Gather views on the death certification review process

The feedback from our ‘gathering views’ survey highlighted:

- 84% of respondents felt there was no impact on funeral arrangements
- 85% understood the changes that were made to the MCCD
- 60% felt the review process had been a positive experience, and
- 24% felt it was a negative experience, with 40% of those feeling this saying they had not been given any information on the review process.

Review the use of the enquiries register

The review of the use of the enquiries register has taken place but it is not yet integrated into the SUGAR IT platform used by our electronic case management system to improve data analysis.

Explore issues identified in the Report of the Gosport Independent Panel

We continue to monitor issues identified in the Report of the Gosport Independent Panel\(^ {13} \) that might be relevant to the review of MCCDs in Scotland. Whilst some apparent differences in familiarity with opioid dose equivalencies set out in the Scottish Palliative Care Guidelines have been discovered, as yet, none have resulted in escalation to the Procurator Fiscal.

\(^ {13} \) https://www.gosportpanel.independent.gov.uk/
Ensure that any public health improvements go beyond deaths reviewed

Early work with ISD suggests we are making a positive impact on deaths not reviewed by the service. Further work will be undertaken in the forthcoming year.

Unexpected developments in 2018-19

Interested person review

Section 4 of the Certification of Death (Scotland) Act 2011, details the criteria for interested person applications. It states if an MCCD has already been reviewed, any interested person application will be ineligible. Basically, you cannot review an MCCD that has already been reviewed.

Over the last four years, we have rejected three interested person review applications because a Level 1 review had already taken place.

My understanding of the rationale here is to avoid duplication of scrutiny, but it was surely not intended to deny the opportunity for a fuller review to take place when additional relevant information becomes available.

A change to the current legislation would allow me to permit this.

Scotland’s world leading mortality review system

Earlier this year, an article in the British Medical Journal\textsuperscript{14} heralded the coming of the delayed medical examiner service in England and Wales under the headline: “How the new medical examiner system could create a world leading mortality review system if implemented appropriately.”

In response, I commented that Scotland already has a world leading mortality review system. Further, one critical issue that distinguishes us is that of independence and impartiality. Our service is part of Healthcare Improvement Scotland, an independent statutory public body. The independence of the service is set out in the 2011 Act\textsuperscript{15} and ensures a robust and consistent review of whether medical certificates of cause of death are ‘in order’.

I also pointed out that when commissioning the service, the Scottish Government made the decision not to charge families who are bereaved a fee at the time of review, which is in marked contrast to the proposals in England.

\textsuperscript{14} https://www.bmj.com/content/bmj/364/bmj.l395.full.pdf
\textsuperscript{15} http://www.legislation.gov.uk/asp/2011/11/contents
Next year we will...

Aim to sustain improvement to the rate of certificates that are ‘not in order’, whilst maintaining positive engagement with the medical profession. A full list of our key objectives can be found under the section ‘What we will do 2019–2020.

Dr George Fernie
Senior Medical Reviewer
Death Certification Review Service
Our findings

Overview

The service reviewed 5,793 cases in year four. Sankey Diagram 1 below shows a breakdown by case type and outcome of cases received.

This Sankey diagram should be read from left to right. It shows how one category is broken down into components, then how a second and subsequent categories are broken down. The diagram shows the size of the connecting paths between the categories.

Diagram 1: Number of cases and breakdown of case type and outcome in 2018–2019

Historical data can be found in Table 1 of Appendix 1: Service data.
The run chart analysis\textsuperscript{17} in Chart 1 below details the total number of cases received per month. There have been two periods of increase, both over the winter months: between November 2017 and April 2018 where there was a transient increase in conjunction with flu-related deaths at that time.

**Chart 1: Number of cases received by the service by month**

Deaths reported to the Procurator Fiscal

Some deaths are required to be formally reported to the Procurator Fiscal\textsuperscript{18}. If during our discussions with the certifying doctor it becomes clear the death falls within this criteria, we recommend the death is reported to the Procurator Fiscal.

As can be seen in the example below, the service does not complete a review of these MCCDs.

\textsuperscript{17} Run chart analysis gives a probability-based indication of when data changes over time by highlighting unusual patterns around a median. The first 12 stable months are used to calculate the median (solid line) and this is extended forward (dashed line) until the data changes. A run of six consecutive points above or below the median (red data points) is a sign the data is changing. New medians are calculated from the first point in a series of nine consecutive points above or below the median.

\textsuperscript{18} Details of cases required to be reported to the Procurator Fiscal can be found on the Crown Office and Procurator Fiscal office website: \url{www.copfs.gov.uk/publications/deaths}. 
Example of case requiring reporting to the Procurator Fiscal

MEDICAL CERTIFICATE OF CAUSE OF DEATH (Form 11)  
(Section 24(1) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965)

The completed certificate should be taken to the Registrar of Births, Deaths and Marriages and will be retained by them.

GUIDANCE FOR COMPLETION OF THIS FORM IS AVAILABLE AT [www.nrscotland.gov.uk/MCCDGuidance](http://www.nrscotland.gov.uk/MCCDGuidance)

PLEASE PRINT CLEARLY IN BLOCK CAPITALS AND DO NOT ABBREVIATE

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<td></td>
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<td></td>
<td>Glasgow</td>
</tr>
<tr>
<td></td>
<td>G89 9XX</td>
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<tr>
<td>Name</td>
<td>Dr A Bee</td>
</tr>
<tr>
<td>GMC number</td>
<td>123456</td>
</tr>
<tr>
<td>Business address</td>
<td>Ward 13</td>
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<tr>
<td></td>
<td>St Lucia Hospital</td>
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<td></td>
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<td></td>
<td>G89 9XX</td>
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<tr>
<td>Business contact telephone number</td>
<td>0141 123 4567</td>
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<tr>
<td>For a death in hospital</td>
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<tr>
<td>Name of the consultant responsible for the deceased</td>
<td>Dr B Cee</td>
</tr>
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I hereby certify that to the best of my knowledge and belief the information contained in this Medical Certificate of Cause of Death is correct.

Signature of certifying doctor

Date

25/11/2018

For registration office use

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<th>Entry number</th>
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06/2014
During discussion with the certifying doctor, it was confirmed the deceased had fractured their hip in a fall and that this had contributed to the death.

Any traumatic event, in this case the fall, requires reporting to the Procurator Fiscal.

Chart 2 shows, as a percentage of all cases received by the service, deaths that were subsequently reported to the Procurator Fiscal average around 2.4% per month.

Failure to report cases to the Procurator Fiscal continues to be an area of concern which we address with NHS boards at our 6-monthly review meetings.
In the 2018–2019 period, 41.3% of cases reported to the Procurator Fiscal were electronic MCCDs, and 58.7% were paper MCCDs.

**Standard cases**

MCCDs are randomly selected for either a Level 1 or Level 2 review. We call these standard cases.

The run chart analysis in Chart 3 indicates that the number of standard Level 1 cases reviewed has increased by 11.2%, from 335 cases to 372.5 per month. There is a signal of increase in the period November 2017 to April 2018 but this is not sustained throughout year four.

**A breakdown of cases reported to the Procurator Fiscal can be found in table 2 in Appendix 1: Service data.**
Below is an example of a Level 2 review

Example of a standard case

An MCCD included

1a – Oesophageal variceal haemorrhage (bleeding from enlarged veins in gullet) 2 days

1b – Liver cirrhosis (scarring to the liver) 4 years

1c – Hepatitis B and Hepatitis D co-infection (inflammatory conditions of liver) 10 years

No hazards were declared.

Hepatitis B and D pose a risk to those handling the body after death and the hazards box (DH1) on the MCCD should have been ticked.

This MCCD required to be reissued with the same sequence and durations and DH1 ticked.

If we have an unsatisfactory review with a certifying doctor or a replacement certificate is required, then we are required to escalate level 1 reviews to level 2.

The number of standard Level 1 cases escalated to standard Level 2 has reduced by 34.2%, from a median of 19 to 12.5 per month and has remained at this level throughout the year as shown in Chart 4.

Chart 4: Run chart of number of Standard Level 1 cases escalated to Level 2 by month

In 119 cases selected for a standard Level 1 review, it was necessary to carry out a fuller standard Level 2 review as demonstrated in the example below.
Example of a Level 1 case escalated to Level 2

An MCCD included

- 1a Infective Exacerbation of Chronic Obstructive Pulmonary Disease (COPD) (problems breathing) 15 days
- 1b Chronic Obstructive Pulmonary Disease (problems breathing) 13 years

Part 2

- Pulmonary Fibrosis (scarring of the lungs) 25 days

Although ‘pulmonary fibrosis’ had been included as a significant contributory factor of this death, a review of the patient ECS entry and discussion with the certifying doctor gave no indication of the cause of the fibrosis.

In the interests of accuracy, and to check for a possible occupational cause, the case was escalated to a Level 2 review in order to obtain further detail from both the GP and hospital records.

The review of the patient records divulged the deceased had been exposed to asbestos during his working life.

Asbestos-related deaths fall within the criteria of reportable deaths to the Procurator Fiscal. The certifying doctor subsequently reported the case and the Procurator Fiscal instructed a limited autopsy in order to obtain a lung tissue diagnosis.

The certifying doctor is now more aware of the need to consider occupational cause and the requirements to report asbestos-related deaths to the Procurator Fiscal.

The medical review team also raises awareness of the medico-legal importance of ensuring a reportable death is not missed at the point an MCCD is issued, by highlighting occupational causes when presenting at training and awareness raising events.

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20 Details of cases required to be reported to the Procurator Fiscal can be found on the Crown Office and Procurator Fiscal office website: www.copfs.gov.uk/publications/deaths
Chart 5 below shows there has been no change over time in the number Standard Level 2 cases reviewed.

**Chart 5: Run chart of number of standard Level 2 cases reviewed by month**

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**Advance registration**

If the family who are bereaved need the funeral to go ahead promptly, the standard Level 1 or Level 2 case can be escalated for *advance registration*. The service can consider *advance registration* if:

- there are religious or cultural reasons (such as faith requirements to bury a person's body quickly)
- compassionate reasons (where delays would cause significant and unnecessary distress), or
- practical or administrative reasons (for example, family have travelled from abroad to attend the funeral).

*Advance registration* decisions must be made within 2 hours and will be approved if the MCCD appears to be substantially in order and does not require reporting to the Procurator Fiscal. In year 4, all advance registration requests were dealt with within 2 hours.
As confidence in the review process has grown, the number of requests for *advance registration* has reduced by more than a third, from 22.5% to 14.5%. It has remained at this level since January 2017 (see Chart 6).

**Chart 6: Run chart of number of advance registration cases reviewed by month**

![Chart 6](chart6.png)

Diagram 2 shows the number of *advance registration* applications, whether approved or declined and the reasons they were not approved.

**Diagram 2: Number of advance registration applications**

- Approved: 97
- Advanced Registration: 152
- Case nearing conclusion or already closed: 48
- Not approved: 55
- Incomplete application form: 1
- Other: 4
- Report to PF required: 2

Around two thirds of all applications are approved. For those not approved, this is mainly because the case is nearing conclusion or already closed.

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21 Tables 6 and 7 in *Appendix 1* provide data on the Advance Registration cases.
Deaths outwith Scotland (repatriations)

The service is responsible for approving burial or cremation in Scotland, of people who have died abroad and want to be repatriated to Scotland. The number of requests for repatriation remains around 14 per month, with most deaths reported to the service during the summer months (see Chart 7). In year 4, with the exception of 1 case, all requests for repatriation were approved within 5 working days.

**Chart 7: Run chart of number of repatriation cases per month**

The service’s medical review assistant (MRA) team provides substantial support to funeral directors dealing with repatriations to Scotland.

The team guides the funeral directors through the process, ensuring the necessary documentation is available to allow the medical reviewer to consider the request for burial or cremation without causing any unnecessary delays to families wishing to make funeral arrangements.

Feedback from funeral directors is very positive. One recently commented: “I have to say, I found the service really great.”

"Thank you for once again for a very efficient and prompt service."

- Feedback from funeral director
Quality and accuracy of MCCDs

MCCDs not in order

With the exception of cases reported to the Procurator Fiscal, all MCCDs reviewed by the service fall into two categories:

- ‘in order’ – this is when the Medical Reviewer is satisfied the MCCD requires no changes
- ‘not in order’ – this is when the Medical Reviewer confirms changes to the MCCD are required

Analysis of the monthly percentage of cases ‘not in order’ using a run chart indicates a percentage reduction, since the service was established in May 2015, of 37.3%, from 44% to 27.6% (see Chart 8). There is a recent further reduction in the last 6 months of data but this is not yet sustained.

Chart 8: Run chart of monthly percentage MCCDs ‘not in order’

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22 The Certification of Death (Scotland) Act 2011, s8 (4) explains ‘in order’ as “where a medical reviewer is satisfied, on the basis of the evidence available to the medical reviewer, that:

a) the cause (or causes) of death mentioned represents a reasonable conclusion as to the likely cause (or causes) of death, and

b) the other information contained in the certificate is correct.”

23 ‘Not in order’ is when section s8 (4) of the Act is not satisfied.

24 Run chart analysis gives a probability-based indication of when data changes over time by highlighting unusual patterns around a median. The first 12 stable months are used to calculate the median (solid line) and this is extended forward (dashed line) until the data changes. A run of six consecutive points above or below the median (red data points) is a sign the data is changing. New medians are calculated from the first point in a series of nine consecutive points above or below the median.
If the MCCD is deemed ‘not in order’, the certifying doctor will be required to either:

- send an email detailing the changes required on the MCCD, or
- write a replacement MCCD.

**Outcome of ‘not in order’ reviews**

Diagram 3 shows the review outcome of ‘not in order’ cases and the action required to be taken by the certifying doctor.

**Diagram 3: Number of cases ‘not in order’ and outcome**

Since 2017, around 7.3% of all MCCDs have required a replacement MCCD. Primarily this is because the service has been unable to make contact with the certifying doctor to carry out the review. Legislation states that the original certifying doctor can confirm minor changes to the MCCD by email. However, if the review is carried out by another doctor then a replacement certificate is required.

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25 For numbers and percentages, see Appendix 1: Service data, Table 3.
Example of a case requiring an email amendment

An MCCD included

- 1a Aspiration Pneumonia (lung infection) 1 day
- 1b Subarachnoid Haemorrhage (bleed in the brain) 8 days
- 1c Ischaemic Stroke (stroke caused by blood clot) 3 days

Part 2

- Hypertension (high blood pressure) 10 years
- Smoking 10 years

Discussed MCCD with certifying doctor and established the deceased had been admitted with a non-traumatic subarachnoid haemorrhage. This was complicated by the development of an ischaemic stroke secondary to vasospasm and then an aspiration pneumonia.

After discussion, the certifying doctor felt that the death would be better represented by swapping the order of the 1b and 1c causes of death. The certifying doctor sent an email amendment to amend the certificate. The MCCD was amended to

- 1a Aspiration Pneumonia (lung infection) 1 day
- 1b Ischaemic Stroke (stroke caused by blood clot) 3 days
- 1c Subarachnoid Haemorrhage (bleed in the brain) 8 days

No changes to Part 2

The service operates under agreed service level agreements set by the Scottish Government and is mindful of the impact the review can have on the bereaved family.

In 2018/19, 96% of Level 1 reviews and 98% of Level 2 reviews, were completed within the agreed service level timescales. In fact, most of the reviews are completed very quickly with

- 70% of level 1 reviews completed within 4 working hours
- 72% of level 2 reviews completed within 1 working day

The number of cases that breach service level agreements remain low.

The most common reason for a case breaching is the certifying doctor or notes not being available.

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26 Level 1 reviews should be completed within 24 hours and Level 2 reviews within 72 hours
MCCDs deemed ‘not in order’ can have more than one error category. Chart 9 illustrates the prevalence of various errors observed in cases due to certifying doctor error. ‘Cause of death too vague’ was the most common recorded error and was observed in 43% of cases with errors.

Chart 9: Percentage of closure categories for MCCDs with errors

Of all reviews where the underlying cause of death was ‘Stroke, not specified as haemorrhage or infarction’, 44.4% were ‘not in order’.

We carried out some analysis on the MCCDs deemed ‘not in order’ since the service began where we recorded the reason as ‘cause of death is too vague’. The most common errors occur when defining:

- neoplasms (cancer) 8.2% of all reviews
- diseases of the circulatory systems (affecting the heart) 5.1% of all reviews
- diseases of the respiratory system (breathing) 2.3% of all reviews

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27 Numbers and percentages are shown in Table 4 of Appendix 1: Service data.
Electronic MCCD (eMCCD)

Almost all GPs, as well as hospices and two small NHS boards: NHS Western Isles and the Golden Jubilee Foundation complete MCCDs electronically (eMCCD). Hospitals continue to use handwritten MCCDs.

The service is committed to supporting the introduction of eMCCDs into secondary care, as it should result in improved accuracy in completion and less impact on bereaved families. Pilot testing is currently in planning and it is anticipated this functionality will be rolled out to hospitals during 2019–2020.

Diagram 5 shows the split between MCCDs completed by hand and those completed electronically.

Diagram 5: All standard and advance registration reviews – split by paper and electronic MCCD

Since the service began, there has been an overall increase of 13.2% in the number of electronic MCCDs reviewed by the service.

---

28 Percentages can be found in Table 5 of Appendix 1: Service data.
Non randomised MCCD reviews

Interested person review, registrar referrals, and ‘for cause’ reviews

Members of the public and registrars can request a review of an MCCD either before the MCCD is registered or after. The number of requests of non randomised MCCDs reviews remains low.

Last year, the service dealt with five requests from the public (interested person reviews\(^{29}\)); three were approved. On completion of the level 2 review, one was found to be ‘not in order’ and required an email amendment\(^{30}\). The other 2 requests were declined as the MCCD had already been reviewed.

We received six registrar referrals\(^{31}\). All were ‘not in order’.

- three required reporting to the Procurator Fiscal
- two required a replacement certificate, and
- one required an email amendment.

The Act states the service can carry out a review of a series of certificates written by an individual certifying doctor. This can be for a specified number of certificates or an agreed length of time. This is called a ‘for cause’ review.

Thanks to the educative approach of the service bringing about the improvements in quality of MCCDs noted throughout the report we have not initiated any ‘for cause’ reviews this year.

Registrar transcription errors

In year four, registrar transcription errors were noted in 454 (7.8%) of MCCDs.

The service highlights these with National Records of Scotland who uses this information across registrar offices to aid improvement with data entry.

\(^{29}\)http://www.healthcareimprovementscotland.org/our_work/governance_and_assurance/death_certification/review_service_information/interested_person_review.aspx

\(^{30}\) A breakdown of interested person reviews Table 8 in Appendix 1: Service data

\(^{31}\) A breakdown of interested person reviews Table 8 in Appendix 1: Service data.
Enquiry line calls

The number of calls received by the enquiry line has been increasing steadily from the start of the service and we now deal with an average of 197 calls per month.

Chart 10 shows a further increase over the last 5 months.

Chart 10: Run chart\textsuperscript{32} of calls to the enquiry line as a percentage of all reviews per month

\textsuperscript{32} The number of calls received by the enquiry line has been increasing from May 15 to Oct 17 and so run chart rules cannot be applied until a stable baseline is established
Example of enquiry line call

Certifying doctor calls to discuss:

- 79 year old man with learning difficulty living in supported accommodation
- Was well last night with carers but found dead in bed this morning
- Police satisfied the death is not suspicious

Certifying doctor seeking advice on completion of MCCD.

- Deceased was an infrequent attendee at the practice
- Past medical history – left ventricular hypertrophy and cardiomyopathy (disease of the heart muscle), vascular dementia - not end stage
- Last seen 9 months’ ago
- Certifying doctor thinks that it is a likely myocardial infarction and will issue an MCCD along the lines of:
  - Ia Presumed myocardial infarction (loss of living heart muscle) 1 day
  - Ib Cardiomyopathy (disease of the heart muscle)

The certifying doctor was advised it would be appropriate to complete the MCCD to best of their knowledge and belief providing they were comfortable to do so.
Training and information

The service supports doctors, healthcare professionals, funeral directors, registrars and members of the public through the case selection and review process. This helps minimise the impact on the bereaved and supports continuous system and service improvement.

We continue to support NHS boards by meeting with them every 6 months and have provided input at local and national training events and through our eLearning modules. For example, last year:

- the service gave presentations on the death certification process at 32 training events
- 163 certifying doctors completed one of our eLearning modules, and
- we began work with NHS Education for Scotland to develop a series of new eLearning modules that will be launched later this year.

Quality Improvement

Dr Andrew Manchip, Medical Reviewer, has been leading a quality improvement project with NHS Lanarkshire.

The aim of the project was to:

- improve the accuracy in completion of MCCDs
- improve the experience for people who are bereaved, and
- reduce the number of registrar transcription errors.

Dr Manchip worked collaboratively with the Quality Improvement Department of NHS Lanarkshire, local registrars, funeral directors and members of the local hospital spiritual care teams.

The project focused on:

- accurate completion of the MCCD
- common errors
- the handover of the MCCD to families of the deceased, and
- accurate data entry by registrars.

An educational delivery programme was devised and a series of awareness raising events were held. This involved doctors of all grades from each of the three main hospitals and from GP practices across the region.
The project concluded ‘cause of death too vague’ was the most common error category. A detailed analysis of this showed diabetes, dementia and pneumonia sub-types, in addition to the specifics of cancer sub-types, were the main areas where errors were made.

Analysis of the monthly percentage of cases ‘not in order’ using a run chart indicates a reduction for NHS Lanarkshire project since 2017 of 16.7%. This trend has continued.

**Chart 11: Run chart of monthly percentage of reviews ‘not in order’ – NHS Lanarkshire**
Public health information

The service is currently working with NHS National Services Scotland to confirm if the service is making a difference to the overall quality of death certification across Scotland. Initial analysis suggests that this is the case.

As one of the primary drivers for bringing about the service was to improve public health, it is encouraging to have this preliminary finding along with the sustained reduction of the ‘not in order’ rate.

An additional public health benefit has also been identified.

**Sudden unexplained death**

Sudden unexpected death in the young (under 50) as a result of inherited cardiac issues is sometimes referred to as Sudden Adult Death Syndrome (SADS) and its identification and management in Scotland is supported by Familial Arrhythmia Network for Scotland (FANS) based in Dundee.

The FANS service was the subject of a national review and Dr Peter Curry, Medical Reviewer, was a member of the review group.

This resulted in the service having a higher awareness of this possibility and successfully identifying potential index\(^{33}\) cases.

**Repatriation cases with public health implications**

The service has identified a number of possible cases in deaths in Scotland and particularly amongst deaths occurring abroad with the bodies later repatriated to the UK. It is known that at least some of these have resulted in the identification of inherited issues and the opportunity has been taken to proactively manage relatives still alive, thus preventing a further untimely death.

This has been a positive benefit for the health of individuals in Scotland resulting from the work of DCRS.

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\(^{33}\) Index refers to the first cases.
Service evaluation

Gathering Views user experience survey

The service, in collaboration with National Records of Scotland and the Association of Registrars for Scotland, completed a ‘Gathering Views’ survey. The survey took place between January and April 2019 and was completed by 82 respondents following the registering of a death. The majority of the deaths (66%) happened in a hospital.

<table>
<thead>
<tr>
<th>We asked</th>
<th>You said</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who advised you the MCCD could be selected for review by the Death Certification Review Service?</td>
<td>Registrar 53%</td>
<td>There appears to have been a shift away from certifying doctors providing this information to bereaved families</td>
</tr>
<tr>
<td></td>
<td>Funeral Director 32%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certifying doctor 7.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other 7.5%</td>
<td></td>
</tr>
<tr>
<td>Were you given information about the Death Certification Review process when you received the Medical Certificate of Cause of Death?</td>
<td>Yes 24%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No 70%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unsure 6%</td>
<td></td>
</tr>
<tr>
<td>Was the information helpful?</td>
<td>Yes 95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No 5%</td>
<td></td>
</tr>
<tr>
<td>Did the review delay the funeral arrangements?</td>
<td>Yes 14%</td>
<td>40% of those who experienced a delay to making funeral arrangements had a Level 2 review</td>
</tr>
<tr>
<td></td>
<td>No 86%</td>
<td></td>
</tr>
<tr>
<td>Did you make an advance registration application?</td>
<td>Yes 4%</td>
<td>Of those who did not make an advance registration application, 70% did not feel this was required</td>
</tr>
<tr>
<td></td>
<td>No 97%</td>
<td></td>
</tr>
<tr>
<td>Were changes made to the MCCD?</td>
<td>Yes 75%</td>
<td>85% felt they understood the changes</td>
</tr>
<tr>
<td></td>
<td>No 16%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable 9%</td>
<td></td>
</tr>
<tr>
<td>What 3 words would you use to describe the death certification process?</td>
<td>Three words used most:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reassuring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Necessary procedure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very efficient</td>
<td></td>
</tr>
<tr>
<td>How would you rate your experience?</td>
<td>Positive 60%</td>
<td>Over 40% of those who felt this was a negative experience were not given information of the process</td>
</tr>
<tr>
<td></td>
<td>Negative 24%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No response 16%</td>
<td></td>
</tr>
<tr>
<td>Areas for improvement?</td>
<td>Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Explanation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
<td></td>
</tr>
</tbody>
</table>

32
In response to this feedback, we have:

- updated our leaflets, combining our general information and *advance registration* leaflets into one, and
- started a review of the MCCD handover process within each local authority area, with a view to standardising this across Scotland.

**Certifying doctor experience survey**

The number of cases reviewed for each certifying doctor this year has ranged from 0–17, with the highest number being from a doctor working in the palliative care setting where certification of death is more common.

Most certifying doctors have now had some experience of the service and we sought their views on their involvement of the death certification review process. They told us

- we were friendly and courteous 100 %
- we clearly described the death registration process 99.2%
- the review conversation was educationally focused 92.8%
- the review highlighted the importance of accurate MCCD completion 88.1%
Complaints, concerns, comments and compliments

Feedback to the service is generally very positive, and complaints are low. In 2018/19 we received 2 complaints, 4 concerns, 4 feedback and 2 compliments.

A recurring theme from feedback has been around the service being involved following an MCCD being reported to the Procurator Fiscal.

Last year it took an average of 70 hours from reporting to the Procurator Fiscal to closing the case.

In response to this, we are working with National Records for Scotland and the Procurator Fiscal’s office to develop a new referral process that will speed up this process.

"Each time I have spoken to someone from the team I learn something new. They really educate you on the up to date advice. The female I had on the phone updated me that deaths due to certain DOAC’s that still had a black triangle, required discussion with the fiscal if they were directly related to the death. I work on the stroke ward and informed my Consultants who were not aware of this. This was incorporated into a teaching session we had. I find the reviews helpful. However sometimes the timing is not great. It would be better if you got prior warning that they were going to phone at a certain time. Even a text or e-mail in the morning to warn you that they are going to phone": Feedback from certifying doctor
What we will do
2019–2020

The service’s educational approach has supported improvements to:

- the quality and accuracy of MCCDs
- public health information about causes of death in Scotland, and
- clinical governance in relation to death certification.

We will continue with this approach to:

**Increase awareness of the death certification review process.**

Ensuring people who are bereaved are aware of the possibility the MCCD may be selected for review or that they can request an *interested person* review.

**Improve the ‘not in order’ rate by increasing awareness across NHS boards about:**
- deaths reportable to the Procurator Fiscal
- accurate completion of an MCCD, and
- eLearning modules on deaths in the community and identifying common mistakes.

**Improve the quality of MCCDs submitted by the registrars.**

Working with National Records of Scotland to identify any common themes.

**Reduce the number of cases that are not completed within the agreed service level agreements.**

Reviewing our current single point of contact (SPOC) arrangements.

**Improve the speed in which the outcomes of cases reported to the Procurator Fiscal are dealt with.**

Developing a new process whereby registrars obtain the outcome of the Procurator Fiscal investigations directly from the Procurator Fiscal rather than through the service.

**Promote the use of (electronic) eMCCD in secondary care.**

Highlighting the benefits to
- certifying doctors during case review discussions
- health boards during educational sessions and 6-monthly review meetings

Continuing to work with partner organisations to support extending eMCCD to secondary care.

Collaborating with NHS Education for Scotland to produce educational materials that will support the above aims.
Death Certification Review Service Management Board

The service is funded by the Scottish Government and is supported by the Death Certification Review Service Management Board. We hope that you have enjoyed reading about our work. If you have any comments please get in touch at DCRS@nhs24.scot.nhs.uk

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alastair Delaney</td>
<td>Director of Quality Assurance</td>
<td>Healthcare Improvement Scotland</td>
</tr>
<tr>
<td>(Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr George Fernie</td>
<td>Senior Medical Reviewer</td>
<td>Healthcare Improvement Scotland (DCRS)</td>
</tr>
<tr>
<td>(Deputy Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rod Burns</td>
<td>Deputy Registrar General</td>
<td>National Records of Scotland</td>
</tr>
<tr>
<td>Cathy Dunlop</td>
<td>Senior Registrar, East Ayrshire</td>
<td>Association of Registrars of Scotland</td>
</tr>
<tr>
<td>David Green</td>
<td>Procurator Fiscal Representative</td>
<td>Scottish Fatalities Investigation Unit</td>
</tr>
<tr>
<td>Angela Hay</td>
<td>Acting Operations Team Manager</td>
<td>Healthcare Improvement Scotland (DCRS)</td>
</tr>
<tr>
<td>Alexandra Jones</td>
<td>Public Partner</td>
<td></td>
</tr>
<tr>
<td>Michael Macmillan</td>
<td>Public Partner</td>
<td></td>
</tr>
<tr>
<td>Cheryl Paris</td>
<td>Policy Officer</td>
<td>Scottish Government</td>
</tr>
<tr>
<td>Alasdair Quinney</td>
<td>Associate Director</td>
<td>NHS 24</td>
</tr>
<tr>
<td>Alison Redpath</td>
<td>Data &amp; Measurement Advisor</td>
<td>Healthcare Improvement Scotland</td>
</tr>
<tr>
<td>Dr Ruth Stephenson</td>
<td>Acting Deputy Senior Medical Reviewer</td>
<td>Healthcare Improvement Scotland (DCRS)</td>
</tr>
<tr>
<td>Andrea Telford</td>
<td>Acting Service Manager</td>
<td>Healthcare Improvement Scotland (DCRS)</td>
</tr>
<tr>
<td>Janice Turner</td>
<td>Principal Educator, Medical Education</td>
<td>NHS Education for Scotland</td>
</tr>
<tr>
<td>Rebecca Weerakoon</td>
<td>Past Chair</td>
<td>Scottish Academy Trainee Doctors Group</td>
</tr>
<tr>
<td>Maggie Buettner</td>
<td>IT Programme Manager &amp; Engagement Lead</td>
<td>National Services Scotland (Information Technology)</td>
</tr>
<tr>
<td>Young</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Healthcare Improvement Scotland

The service is part of Healthcare Improvement Scotland, an organisation with many parts and one purpose – better quality health and social care for everyone in Scotland.

For more information visit [http://www.healthcareimprovementscotland.org/](http://www.healthcareimprovementscotland.org/)
Appendix 1: Service data

The tables below provide a more detailed breakdown of the service data over the last 3 years.34

Table 1: Cases reviewed by type

<table>
<thead>
<tr>
<th>Case type</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Level 1</td>
<td>4506 (75.6%)</td>
<td>4757 (76.1%)</td>
<td>4444 (76.7%)</td>
</tr>
<tr>
<td>Standard Level 2</td>
<td>1060 (17.8%)</td>
<td>1118 (17.9%)</td>
<td>1016 (17.5%)</td>
</tr>
<tr>
<td>Advance registration</td>
<td>189 (3.2%)</td>
<td>179 (2.9%)</td>
<td>152 (2.6%)</td>
</tr>
<tr>
<td>Repatriation</td>
<td>174 (2.9%)</td>
<td>183 (2.9%)</td>
<td>170 (2.9%)</td>
</tr>
<tr>
<td>Interested person</td>
<td>6 (0.1%)</td>
<td>2 (0%)</td>
<td>5 (0.1%)</td>
</tr>
<tr>
<td>Registrar referral</td>
<td>21 (0.4%)</td>
<td>15 (0.2%)</td>
<td>6 (0.1%)</td>
</tr>
<tr>
<td>Medical reviewer ‘for cause’ referral</td>
<td>7 (0.1%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>5963</td>
<td>6254</td>
<td>5793</td>
</tr>
</tbody>
</table>

Table 2: Cases reported to Procurator Fiscal by type

<table>
<thead>
<tr>
<th>Case type</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Level 1 and Level 2</td>
<td>185 (97.4%)</td>
<td>167 (95.4%)</td>
<td>145 (96.7%)</td>
</tr>
<tr>
<td>Advance registration</td>
<td>4 (2.1%)</td>
<td>5 (2.9%)</td>
<td>2 (1.3%)</td>
</tr>
<tr>
<td>Interested person</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Medical reviewer ‘for cause’ referral</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Registrar Referral</td>
<td>1 (0.5%)</td>
<td>3 (1.7%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Repatriation</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
<td>175</td>
<td>150</td>
</tr>
</tbody>
</table>

% cases reported to Procurator Fiscal | 3.3% | 2.8% | 2.7%

Table 3: Number and percentage of ‘Not in order’ cases by outcome

<table>
<thead>
<tr>
<th>Review Outcome</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email amendment required</td>
<td>1924 (92.9%)</td>
<td>1580 (91.6%)</td>
<td>1226 (90.8%)</td>
</tr>
<tr>
<td>Replacement MCCD required</td>
<td>148 (7.1%)</td>
<td>144 (8.4%)</td>
<td>124 (9.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>2072</td>
<td>1724</td>
<td>1350</td>
</tr>
</tbody>
</table>

34 Data source: Death Certification Review Service case management system (Sugar) and National Records of Scotland.
Table 4: Number and percentage of closure categories for MCCDs with errors

<table>
<thead>
<tr>
<th>Closure categories</th>
<th>Count</th>
<th>% of reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awaiting clinical information</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Legibility</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Certifying doctor’s details omitted</td>
<td>12</td>
<td>1%</td>
</tr>
<tr>
<td>Deceased details omitted</td>
<td>12</td>
<td>1%</td>
</tr>
<tr>
<td>Disposal hazard not completed</td>
<td>27</td>
<td>2%</td>
</tr>
<tr>
<td>Additional information not completed</td>
<td>35</td>
<td>3%</td>
</tr>
<tr>
<td>Extra information box un-ticked</td>
<td>46</td>
<td>3%</td>
</tr>
<tr>
<td>Certifying doctor’s details incorrect</td>
<td>52</td>
<td>4%</td>
</tr>
<tr>
<td>Abbreviations used</td>
<td>86</td>
<td>6%</td>
</tr>
<tr>
<td>Deceased details incorrect</td>
<td>110</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>127</td>
<td>9%</td>
</tr>
<tr>
<td>Certifying doctor spelling error</td>
<td>146</td>
<td>11%</td>
</tr>
<tr>
<td>Conditions omitted</td>
<td>173</td>
<td>13%</td>
</tr>
<tr>
<td>Causal timescales omitted</td>
<td>198</td>
<td>15%</td>
</tr>
<tr>
<td>Sequence of cause of death incorrect</td>
<td>274</td>
<td>20%</td>
</tr>
<tr>
<td>Cause of death incorrect</td>
<td>378</td>
<td>28%</td>
</tr>
<tr>
<td>Cause of death too vague</td>
<td>579</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1350</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Paper and electronic MCCD comparison

<table>
<thead>
<tr>
<th>Review outcome</th>
<th>eMCCD</th>
<th>paper MCCD</th>
<th>% difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order</td>
<td>71.4%</td>
<td>75.0%</td>
<td></td>
</tr>
<tr>
<td>Not in order</td>
<td>26.2%</td>
<td>22.1%</td>
<td>4.1%</td>
</tr>
<tr>
<td>of which email amendment</td>
<td>91.4%</td>
<td>90.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>of which replacement MCCD</td>
<td>8.6%</td>
<td>9.8%</td>
<td>-1.2%</td>
</tr>
<tr>
<td>To Procurator Fiscal</td>
<td>2.3%</td>
<td>2.9%</td>
<td></td>
</tr>
</tbody>
</table>

**Percentage total reviews with registrar errors**

<table>
<thead>
<tr>
<th></th>
<th>0.2%</th>
<th>15.6%</th>
<th>-15.3%</th>
</tr>
</thead>
</table>
Table 6: Advance registration application summary

<table>
<thead>
<tr>
<th>Request outcome</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>128 (67.7%)</td>
<td>116 (64.8%)</td>
<td>97 (63.8%)</td>
</tr>
<tr>
<td>Not approved</td>
<td>61 (32.3%)</td>
<td>63 (35.2%)</td>
<td>55 (36.2%)</td>
</tr>
</tbody>
</table>

Review outcome

| In order                             | 109 (57.7%)                        | 128 (71.5%)                      | 112 (73.7%)                      |
| not in order                         | 76 (40.2%)                         | 46 (25.7%)                       | 38 (25%)                        |
| Procurator Fiscal                    | 4 (2.1%)                           | 5 (2.8%)                         | 2 (1.3%)                        |

Reason

| Administration, Compassionate or both| 167 (88.4%)                        | 140 (78.2%)                      | 126 (82.9%)                      |
| Religion or faith                   | 22 (11.6%)                         | 39 (21.8%)                       | 26 (17.1%)                       |

Review level

| Level 1                              | 119 (63%)                          | 116 (64.8%)                      | 95 (62.5%)                       |
| Level 2                              | 70 (37%)                           | 63 (35.2%)                       | 57 (37.5%)                       |

Total 189 179 152

Table 7: Advance registration reasons for not approved

<table>
<thead>
<tr>
<th>Decline Reason</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case nearing conclusion or already closed</td>
<td>51 (83.6%)</td>
<td>54 (85.7%)</td>
<td>48 (87.3%)</td>
</tr>
<tr>
<td>Hazards information not completed</td>
<td>0 (0%)</td>
<td>1 (1.6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Incomplete application form</td>
<td>3 (4.9%)</td>
<td>3 (4.8%)</td>
<td>1 (1.8%)</td>
</tr>
<tr>
<td>MCCD not signed</td>
<td>0 (0%)</td>
<td>1 (1.6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>More appropriate for Procurator Fiscal</td>
<td>3 (4.9%)</td>
<td>2 (3.2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Other</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>4 (7.3%)</td>
</tr>
<tr>
<td>Report to Procurator Fiscal required</td>
<td>4 (6.6%)</td>
<td>2 (3.2%)</td>
<td>2 (3.6%)</td>
</tr>
</tbody>
</table>

Total 61 63 55
Table 8: Number and percentage of Interested Persons reviews

<table>
<thead>
<tr>
<th>Request outcome</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>2 (33.3%)</td>
<td>1 (50%)</td>
<td>2 (40%)</td>
</tr>
<tr>
<td>Not approved</td>
<td>4 (66.7%)</td>
<td>1 (50%)</td>
<td>3 (60%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time of request</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before registration</td>
<td>1 (16.7%)</td>
<td>1 (50%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>After registration</td>
<td>5 (83.3%)</td>
<td>1 (50%)</td>
<td>5 (100%)</td>
</tr>
</tbody>
</table>

**Total requests**: 6 2 5

<table>
<thead>
<tr>
<th>Review outcome</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order</td>
<td>1 (25%)</td>
<td>0 (0%)</td>
<td>2 (66.7%)</td>
</tr>
<tr>
<td>Not in order</td>
<td>3 (75%)</td>
<td>1 (100%)</td>
<td>1 (33.3%)</td>
</tr>
<tr>
<td>Reported to PF</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

Table 9: Number and percentage of registrar referral reviews

<table>
<thead>
<tr>
<th>Review outcome</th>
<th>Year 2 01 April 2016 - 31 Mar 2017</th>
<th>Year 3 01 Apr 2017 - 31 Mar 2018</th>
<th>Year 4 01 Apr 2018 - 31 Mar 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order</td>
<td>1 (4.8%)</td>
<td>4 (26.7%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Not in order</td>
<td>19 (90.5%)</td>
<td>8 (53.3%)</td>
<td>3 (50%)</td>
</tr>
<tr>
<td>Escalated to PF</td>
<td>1 (4.8%)</td>
<td>3 (20%)</td>
<td>3 (50%)</td>
</tr>
</tbody>
</table>

**Total**: 21 15 6
Table 10: Number and percentage of reviews in each NHS board compared to population deaths

<table>
<thead>
<tr>
<th>Health board</th>
<th>DCRS reviews 01 April 2018 - 31 March 2019</th>
<th>Deaths 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayrshire and Arran</td>
<td>471 (8.1%)</td>
<td>4,753 (8.1%)</td>
</tr>
<tr>
<td>Borders</td>
<td>140 (2.4%)</td>
<td>1,472 (2.5%)</td>
</tr>
<tr>
<td>Dumfries and Galloway</td>
<td>182 (3.1%)</td>
<td>1,950 (3.3%)</td>
</tr>
<tr>
<td>Fife</td>
<td>376 (6.5%)</td>
<td>4,028 (6.9%)</td>
</tr>
<tr>
<td>Forth Valley</td>
<td>315 (5.4%)</td>
<td>3,233 (5.5%)</td>
</tr>
<tr>
<td>Grampian</td>
<td>548 (9.5%)</td>
<td>5,710 (9.8%)</td>
</tr>
<tr>
<td>Greater Glasgow and Clyde</td>
<td>1,224 (21.1%)</td>
<td>12,647 (21.6%)</td>
</tr>
<tr>
<td>Highland</td>
<td>305 (5.3%)</td>
<td>3,787 (6.5%)</td>
</tr>
<tr>
<td>Lanarkshire</td>
<td>685 (11.8%)</td>
<td>7,247 (12.4%)</td>
</tr>
<tr>
<td>Lothian</td>
<td>771 (13.3%)</td>
<td>8,088 (13.8%)</td>
</tr>
<tr>
<td>National</td>
<td>13 (0.2%)</td>
<td>-</td>
</tr>
<tr>
<td>Orkney</td>
<td>31 (0.5%)</td>
<td>226 (0.4%)</td>
</tr>
<tr>
<td>Shetland</td>
<td>18 (0.3%)</td>
<td>217 (0.4%)</td>
</tr>
<tr>
<td>Tayside</td>
<td>498 (8.6%)</td>
<td>4,789 (8.2%)</td>
</tr>
<tr>
<td>Western Isles</td>
<td>42 (0.7%)</td>
<td>356 (0.6%)</td>
</tr>
<tr>
<td>Cases not allocated to a board</td>
<td>174 (3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,793 (100%)</strong></td>
<td><strong>58,503 (100%)</strong></td>
</tr>
</tbody>
</table>

*Cases not allocated to an NHS board are interested person reviews and repatriation cases.*
You can read and download this document from our website. We are happy to consider requests for other languages or formats. Please contact our Equality and Diversity Advisor on 0141 225 6999 or email contactpublicinvolvement.his@nhs.net

Death Certification Review Service
Healthcare Improvement Scotland

Norseman House
2 Ferrymuir
South Queensferry
EH30 9QZ

0300 123 1898
dcrs@nhs24.scot.nhs.uk
www.healthcareimprovementscotland.org