

National Offender Management Service

***Review of Unclassified Deaths***

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## 1. Executive summary

- 1.1. On 24<sup>th</sup> October 2011 I was commissioned to do a review of a group of thirty five deaths among prisoners, referred to as unclassified deaths. There was a suggestion that these were as a result of drug toxicity – the ingestion of combinations of drugs. However I was commissioned with an open mind to look at all aspects of the deaths and determine what, if any, common cause there was and what could be learned from them.
- 1.2. I did not find any evidence that the men and women in this group committed suicide. Nor did I find that the deaths were due to toxicity caused by a combination of drugs although clearly this is dangerous behaviour. What I found, assisted by expert advisors, was that a large proportion of the deaths were methadone-related. It is probably difficult to identify in advance who among the prisoner population is susceptible to this risk and indeed it is a risk that may not easily be amenable to mitigation.
- 1.3. Whilst this was a small group, relative to the whole prison population, and indeed compared to the total number of prisoners on IDTS (approximately 60,000 prisoners received drug treatment in 2011), this conclusion (that their deaths were methadone-related) does now need to inform further work on the part of the Department of Health and NOMS. This is in no way a suggestion that the enormous achievements of IDTS should be undone; it is rather a proposal for work to build on what has been created and which would give some assurance that the way in which IDTS operates for the future is as fit for the prison environment as possible.
- 1.4. It is also important that I record that it is not for me to pronounce on the cause of any individual death. That is a legal function reserved absolutely to Coroners and is quite properly not my domain. I am, however, very grateful for the generous assistance I received from Coroners in conducting the review.

## Recommendations

<b>Principal recommendations</b>	
1.	<b>There should be further exploration by Department of Health of the relative merits of both buprenorphine and methadone in prison, recognising that NICE guidance recommends methadone as first line treatment for the clinical management of opiate dependence.</b>
2.	<b>Guidance for nursing and discipline staff about how to conduct observations (and respond to them) overnight should be reissued and reiterated at regular intervals.</b>
3.	<b>SystemOne should be linked to the NHS “spine”.</b>
4.	<b>Updated guidance, especially the 2006 Clinical Management of Drug Dependence in the Adult Prison Setting, should incorporate new learning from academia reflecting new developments in drug treatment and research into drug treatment.</b>
<b>Subsidiary recommendations</b>	
5.	<b>The Department of Health should issue straightforward guidance about how clinical confidentiality should work in prisons.</b>
6.	<b>Governors must ensure that health and security departments work closely together to generate a greater flow of information between the two in order to improve the work carried out by both departments.</b>
7.	<b>Prescribing guidance for the first night in prison should either be revised or reiterated as best practice to achieve greater consistency across the prison estate.</b>
8.	<b>The scrutiny of the quality of reviews should be part of the contract/commissioned service and therefore part of the contract review process.</b>

9.	<b>NOMS/Offender Health should be clear about governors' responsibilities for healthcare so that governors know what their responsibilities are and what mechanisms they can use if changes need to be made.</b>
10.	<b>The regular audit of reviews (i.e. both process and content) should be part of the contract and commissioned arrangements for healthcare.</b>
11.	<b>The "dear colleague" letter dated 31.3.10 should be reiterated/reissued.</b>
12.	<b>National guidance should be drawn up by NOMS and OH setting out the tasks to be done on the medicine queue, who should do them and how. The work should be "profiled" as a core part of the prison regime.</b>
13.	<b>The NHS commissioning board, as part of its responsibilities for national patient safety, should consider auditing prescribing practice in prisons. Pharmacists with secure environment expertise should be asked to review this data. The corollary of this is that The NHS commissioning board should mandate each outpost/commissioning unit to have a medicines management committee whose job it will be to audit prescribing and medicines; this will require pharmacy expertise.</b>
14.	<p><b>NOMS and health should co-commission prison healthcare and a number of issues about which there is an understandable lack of confidence across much of the prison estate and among stakeholders should be built into this. They include:</b></p> <ul style="list-style-type: none"> <li><b>• Audit</b></li> <li><b>• Quality control</b></li> <li><b>• Training of doctors and nurses and</b></li> <li><b>• The minimum permissible percentage of staff in any contracted service</b></li> <li><b>• The continued presence of psychosocial interventions now that CARATs are being absorbed into the mainstream drug treatment provision (except in Wales where they will remain separate)</b></li> <li><b>• In their contract with GPs, the PCTs and their replacement bodies should be requiring them to regard requests for documents from prisons as a high priority and delays</b></li> </ul>

	<b>should not be acceptable.</b>
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## **Approach**

- 1.5. The individual men and women who died appeared to be marked out by being relatively young and by the majority being given drug treatment in local prisons. I was asked to review the policies and procedures relevant to these deaths and to make recommendations. To identify, understand and explore the issues I read all the relevant Prisons and Probation Ombudsman's reports, read the relevant guidance, conducted a series of prison visits across the country during which I met a range of (front line and senior) staff and I interviewed a series of experts.
- 1.6. It became clear to me that expert examinations of all the relevant pathology and toxicology reports prepared for coroners would be crucial to my understanding of the issues at the heart of this review and a joint analysis of these reports was therefore commissioned from relevant experts.
- 1.7. The Institute for Fiscal Studies was asked and agreed to analyse the data in order to identify any statistically significant features which might inform an understanding of the deaths (albeit in a very small sample of deaths).

## **Issues**

- 1.8. The Integrated Drug Treatment System which provides substance misuse treatment including opiate substitution treatment has transformed drug treatment in English prisons. It has saved lives.
- 1.9. Now that IDTS has been in place for six years it is perhaps hardly surprising that I found that some aspects of how it operates in practice are in need of review. This was further supported by the pathology and toxicology reviews which concluded that many of the deaths in the cohort were methadone-related. Clearly there is a need for caution about what was a small sample. Also what happens in prison must be considered alongside what happens in the community to those who are receiving substance misuse treatment.
- 1.10. I set out first what I believe are the four priority issues which I think have a high level of association with the deaths and these form the basis of the four principal recommendations of the review. I recommend that there should be further work conducted on the drugs used in prison (and that this should inform updated guidance), awareness of how overnight observations should be conducted and getting critical medical and pharmacy information from the community electronically.
- 1.11. The other ten (and subsidiary) recommendations do not have the same association with the deaths but relate to issues which emerged strongly during my work and were raised consistently and repeatedly usually by front line staff. They mainly concentrate on health-related matters but include the relationship

between security and health which I believe needs to be closer. I appreciate that suggesting, as I do, that there should be some central guidance (for example on the management of the medicine queue) runs counter to the current governmental approach but I do believe that it would help, along with the other measures to strengthen arrangements for all prisoners.

## 2. Context / Background

2.1. The terms of reference for this report are set out at Annex A. I was asked to look at a group of deaths in order to examine any common features in their management and to make recommendations for future practice. I must stress that examining and pronouncing upon the cause of individual deaths is purely a matter for coroners and therefore not part of what I do here.

2.2. The National Offender Management Service (NOMS) informal system for classifying deaths in prison, pending the coroner's determination, uses four categories based on apparent cause:

- Apparent natural causes
- Apparent self-inflicted
- Apparent homicide
- Apparent other/non-natural

2.3. There is also, for those deaths where there is not an immediate apparent cause, the category of "unclassified". This is an informal classification system which allows NOMS to track the number and nature of deaths in prison before coroners give their verdicts; at that point all prison deaths are formally classified.

2.4. This review was prompted by an increase in the number of (initially) "unclassified" deaths in prison in recent years. Because all deaths in prison are ultimately classified, the numbers are constantly changing. This can make comparing different elements of the data difficult and potentially confusing.

2.5. The number of deaths deemed "unclassified" at the end of each of the last three years is as follows:

- 2009 -2010 unclassified deaths                   **0**
- 2010-2011 unclassified deaths                   **15**
- 2011-2012 unclassified deaths                   **20**

2.6. During the two year period 2010 to end of 2011 there were 60 deaths that were at one point unclassified. Their age and gender breakdown is set out below. This number reduced to fifteen by the end of 2010 and 20 during 2011 as cases became reclassified. Thus leaving 35 cases remaining "unclassified" for the two year period at 1<sup>st</sup> January 2012.

2.7. As cases have become classified this number (35) reduced to 25 cases remaining unclassified soon after the review was started.

Year	Age band	Ethnicity	Female	Male
2010	30-39	Asian		2%
	30-39	Black		3%
	30-39	White	5%	3%
	40-49	Asian		3%
	40-49	White	3%	5%
	50-59	Asian		2%
	50-59	White		5%
	60 and over	White		3%
	<i>No. of deaths</i>			5
2011	21-24	White		3%
	21-24	Mixed	2%	
	25-29	White		5%
	30-39	Asian		2%
	30-39	Black		2%
	30-39	White	2%	17%
	40-49	Asian		2%
	40-49	Black		2%
	40-49	White		13%
	50-59	White		8%
	60 and over	Asian		2%
	60 and over	White		7%
	<i>No. of deaths</i>			2

2.8. The prisoners in the group being reviewed are principally white men aged between 25 and 49 who die overnight in local prisons. An analysis of prisoner deaths in custody including this cohort is set out in Annex D. This would appear to show that women and non-white prisoners are, in fact, marginally over represented in the cohort compared to women and non-white prisoners in other cohorts of deaths in prison.

2.9. In addition to growing concerns within NOMS a number of stakeholders expressed concerns about the increase in “unclassified” deaths, including most significantly the Prisons and Probation Ombudsman who wrote to the Chief Executive of the National Offender Management Service, about the concerns and the apparent association with drug treatment, as a high percentage of the prisoners whose deaths were in this category were undergoing substance misuse treatment. These observations were echoed by other stakeholders and to some extent within NOMS itself.

2.10. From an initial analysis of the unclassified deaths there appeared to be a connection with the drugs maintenance regime in prisons. In some of the cases this was combined with access to prescribed (and illegal) drugs. Whilst there is limited concrete evidence of this it is a possibility which has been considered in the review.

2.11. A key principle governing the provision of health treatment in prison, set out in the National Partnership Agreement between the Department of Health and the Home Office for the Accountability and Commissioning of Health Services for Prisoners London 2007, is that there should be equivalence of treatment whether patients are in prison or in the community.

### **3. Brief**

3.1. The Director of National Operational Services (NOS) therefore commissioned a review of this group of deaths with a view to identifying any lessons to be learned and making recommendations in order to prevent future similar occurrences.

3.2. The report is commissioned by the Director of NOS and its findings will ultimately be presented to NOMS Executive Management Committee and the Ministerial Board on Deaths in Custody.

### **4. Definition of the Cohort**

4.1. The cohort selected for this review is those men and women who died in English and Welsh prisons in 2010 and 2011 and whose death was deemed “unclassified”. The cohort does change over time because many of these deaths become reclassified as more information about the circumstances of the prisoner’s death becomes available and as the coroners’ verdicts are pronounced.

4.2. All deaths are eventually classified by coroners and included by NOMS in one of the four substantive categories. It may take some years for the numbers of unclassified deaths to reduce to zero.

4.3. Between 1.1.10 and 31.12.11 there were 60 deaths in prison that were at one point deemed to be “unclassified”; they constituted 15% of all deaths in prison during that two year period.

4.4. Thirty five of those deaths have now been substantively classified leaving 25 remaining unclassified. The 35 have now been reclassified as follows:

- 28 are now categorised as “natural causes”
- Six are categorised as “other non-natural” and
- One as “self-inflicted<sup>1</sup>”.

4.5. Of the 28 deaths reclassified as “natural causes” inquests are still awaited for 16. Of the 12 that have concluded only two cases stated in the inquisition that drug or alcohol withdrawal or treatment issues related to the deaths. This suggests (assuming that the remaining 16 follow a similar pattern) that there is a clear difference between those cases that become classified as “natural causes” and those that are deemed to be “other/non-natural”.

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<sup>1</sup> This death was re-classified at an early stage and was, therefore, not part of the cohort.

- 4.6. Just three of the six “other/non-natural” cases have been through the coronial process. One concluded that although there was morphine in the prisoner’s system the jury could not be sure that this had caused the death. In another the verdict was drug toxicity and in the third the narrative verdict said that “Although the precise cause of death cannot be ascertained, it is most likely that the cardio-pulmonary arrest was caused by the interaction of the drugs taken”. Some of the drugs were not prescribed.
- 4.7. Of the three cases that have yet to have an inquest two involve alcohol misuse. The third involves a prisoner who was on supervised medicines.
- 4.8. It should be noted that because the cohort numbers are dynamic, there are slightly fewer cases included in the toxicology and pathology reviews. There are 20 out of 24 cases included in the toxicology and pathology reviews<sup>2</sup>. The outstanding four were deemed unclassified too late to be included.

## 5. Methodology

- 5.1. **Literature Review:** Prisons and Probation Ombudsman’s reports on the cohort of “unclassified” deaths for 2010 and 2011 (including some clinical reviews) and the guidance on the management of drugs treatment in prison and other related material (see Annex B).
- 5.2. **Commissions:** NOMS agreed that two expert opinions should be sought and a joint report commissioned:
- 5.2.1. Thematic analysis of toxicology: review of toxicology reports for all unclassified deaths 2010 – 2012 by Professor Robert Flanagan, Kings College Hospital, London (see Annex C).
- 5.2.2. Thematic analysis of pathology: review of autopsy reports for all unclassified deaths 2010-2012 by Professor Richard Shepherd, University of Liverpool (see Annex C)
- 5.3. A second report has been provided pro bono by the Institute for Fiscal Studies (IFS): Thematic analysis of data: analysis of NOMS data on “unclassified” deaths to see if there are any statistically significant features within the data from which lessons can be drawn or further work initiated by Professor Imran Rasul (also of University College, London) and Jonathan Shaw (IFS), (see Annex D).
- 5.4. **Expert advice:** discussions with stakeholders, advisors within the Department of Health, NOMS senior leaders and subject experts in Safer Custody, Security, coroners, prison healthcare staff who are not directly employed by the prison service (general practitioners nurses, and pharmacists), academics and commissioners (listed at Annex E).

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<sup>2</sup> In the remaining case, only a cardiology report was available.

5.5. **Fieldwork:** I visited a range of prisons across the whole estate and talked to staff: prison officers, healthcare staff (nurses, doctors and pharmacists), CARATs workers, security and governors in the public sector and directors in the private sector. I did fifteen prison visits.

## 6. Findings from each source

6.1. In this section I briefly outline the key points which emerged from the different sources used to inform this review. The consistency of the comments in the Ombudsman's investigations into the deaths of prisoners, the expert advice and the accounts I was given during fieldwork visits was notable.

6.2. Also of note was the level of professional and human concern about prisoners from everyone I spoke to. This was particularly marked in front line staff in prisons but also among experts of all disciplines whose commitment to making things better if they could was impressive.

### Literature review (Annex B)

6.3. In addition to the guidance used to treat drug and alcohol addiction in the community there is specific guidance on how substance misuse treatment (and related issues) should be managed in prison. This has been supplemented with Prison Instructions and "Dear Colleague" letters.

6.4. What emerges from coroners' verdicts and the Ombudsman's reports is that the guidance is fundamentally sound but is not always followed. I concur with this view but do think some of the guidance needs to be refreshed to reflect the changing nature of prison healthcare (and substance misuse treatment) and to benefit from the wealth of experience and knowledge gained in prison healthcare since the advent of IDTS in England. Refreshing the guidance would also allow the learning from six successful years of IDTS to be incorporated and to enhance those aspects of the guidance which in hindsight needed to be clearer.

6.5. My reading of the Ombudsman's reports into unclassified deaths suggests that there is a series of issues in need of improvement. I have grouped these into those that I think are more likely to be causally related to the deaths in prison and those that are important and would strengthen arrangements for all prisoners but which have, I think, a more remote relationship with this particular cohort of deaths:

#### Core issues:

- the management and supervision of the administration of medicine
- the communication (of medical information) between the community and prisons and speed of this
- communication between healthcare and security
- observations carried out as per guidance or clinician's instructions
- the consistency of prescribing and doctors' ability to refuse drugs

- staff's ability to recognise signs of drug overdose (need training)

Areas for improvement in drug management which would strengthen arrangements for all prisoners:

- record keeping
- the training and governance of locum doctors
- the training and competence of staff (especially in healthcare)
- information sharing across departments
- awareness of the impact of combinations of drugs, especially with methadone

**(ii) Commissions: toxicology, pathology and thematic analysis of data (see Annexes C and D)**

**Thematic analysis of toxicology and thematic analysis of pathology**

6.6. The thematic analyses of the toxicology and pathology reports conducted by Professors Flanagan and Shepherd indicate that the deaths were, in their view, methadone-related in a significant number of cases. There is some caution about these results as the numbers involved are small but out of 20 sudden, unexpected deaths that occurred in prison in England July 2010–end 2011 ('unclassified' deaths on the NOMS system pending inquest) that were sent for review and in which full information was available, 17 (85 %) were methadone-related.

6.7. The authors of the reviews draw particular attention to two points:

- Methadone is slowly absorbed, has a long plasma half-life, and is particularly toxic at night
- In 13 of the 17 methadone-related deaths in this survey the patient was either found dead first thing in the morning, or in one case could not be roused ('snoring heavily'). The other 4 methadone-related deaths occurred within 3–4 hours of likely their last methadone dose.

6.8. In order to be able to make an assessment of the significance of what is happening in prison it is important to be able, if possible, to compare this with what is known about what is happening in the community. The Professors, in their review of the toxicology and pathology reports of the cohort of deaths, draw attention to an article by Kim Wolff: Characterization of Methadone Overdose: Clinical Considerations and the Scientific Evidence. In this Wolff comments upon the growing phenomenon of methadone overdose but comments that little is known about the circumstances surrounding methadone death due to some extent to the difficulty of collecting clinical and biographical data in a predominantly illegal and marginal milieu. He urges further exploration of the issue.

6.9. It seems likely that at least some of the methadone-related deaths in the community to which Professors Flanagan and Shepherd refer in their report will include deaths that are similar in aetiology to those that are the subject of this

review. Methadone-related deaths are common in the community for a variety of reasons; hence it is not being asserted that methadone-related deaths at prescribed methadone doses occur only in prisons.

### **Thematic analysis of data (see Annex D)**

6.10. Given the small number of unclassified deaths over a relatively short period it was agreed that the most useful approach would be to look at all self-inflicted deaths and compare them to deaths in custody from natural causes (it is worth noting that of course there is the third option of other/non-natural which was not included here). This statistical analysis was undertaken with the aim of identifying if there are any clear features of these self-inflicted deaths that might help NOMS identify which prisoners are most likely to die (not through natural causes) in prison. If a clear set of features emerged it would then be possible to test how accurately this statistical model would have predicted the "unclassified" deaths.

### **(iii) Practitioner Opinion (see Annex E)**

6.11. Below I set out the views which I have been given by a range of practitioners. What emerges from these discussions is that there is no one single unifying explanation advanced by all opinions. Rather there is a range of views, some based as much on ideology as on evidence, but taken together build a picture of a system that works reasonably well but needs improvement and is too dependent upon individuals rather than confident management of systems. The improvements would strengthen arrangements for the safe management of prisoners.

6.12. In general:

- Pharmacists were valued by a number of governors and could play a much bigger role in the management of drugs in prison
- Prescribing should be audited
- Some governors are not confident about how to challenge health if they think the health provision in their prison is not good enough
- Generally governors are not confident commissioners or contract managers of healthcare
- Doctors' ability to practice safely is hampered by the lack of rapid information from community clinicians and prescribers.
- Opinion is divided on the merits of methadone as the treatment drug of choice for opiate addiction
- Many believe there is too much methadone prescribed for too long
- The learning from coroners' verdicts is not made available to the Department of Health.
- There are too many locum doctors and agency nurses reflecting the low status of prison medicine

6.13. In prison:

- Health and Security operate in silos and the exchange of information between health and security is variable
- Clinical confidentiality is sometimes inappropriately advanced as a reason not to exchange information
- The guidance on in possession medication is fine but not its implementation; this view was echoed in discussions with staff during my visits to prisons
- Local police activity in and around the prison is inconsistent
- There is no accurate account of what drugs there are in prison
- There is clear guidance governing prescribing on the first night in prison but (according to the discussions in prison I had) is not universally applied
- Neither overnight checks nor reviews are reliably or consistently compliant with the required standards
- Medicine queues are not consistently (or in some cases professionally) managed across the estate and are a source of frustration for staff.

6.14. I do not necessarily endorse these views but they were sincerely held by the people I talked to.

## 7. What issues appear to be linked to the deaths?

7.1. There is no doubt that IDTS has brought about substantial improvements in the care afforded prisoners who have substance abuse problems. It was introduced in part to reduce the number of deaths in prison and has been successful in achieving that. What follows in this report should be considered in that context.

7.2. The review of the toxicology and pathology reports concludes that the deaths in the cohort are methadone-related. The authors draw attention in their report (Annex C) to the particular features of methadone that make it especially toxic at night when the majority of the deaths occurred. They do not conclude that there is a toxic combination of drugs which is related to the deaths. They advocate the exploration of greater use of buprenorphine. I support the exploration by the Department of Health of the relative merits of both buprenorphine and methadone. They propose that there should be greater education for prison staff about the warning signs of likely methadone toxicity which might help to minimise the risk of unexpected death in patients given methadone.

**Recommendation (1): There should be further exploration by Department of Health of the relative merits of both buprenorphine and methadone in prison, recognising that NICE guidance recommends methadone as first line treatment for the clinical management of opiate dependence.**

7.3. **Which led me to explore the following priority issues:** Whilst a large number of issues were explored by me with staff and experts during the course

of the review it has become clear that there is a limited number which appear to have a high level of association with the deaths. They are as follows:

### **7.3.1. Overnight checks**

7.3.1.1. Most of the “unclassified” deaths that took place in the last two years (between January 2010 and March 2012) occurred overnight. Of those deaths recorded as “unclassified”, 46% occurred within the prisoner’s first month of arriving at their current prison.

7.3.1.2. While observations (critical to the monitoring of withdrawal symptoms as well as basic safety) should be equivalent to those that would be conducted in the community the nature of the prison environment means that they are different. Some health staff I spoke to were unhappy about what they saw as their compromised ability to check on prisoners and others expressed concern about the overall quality of overnight checks carried out by clinical and security staff especially during the high risk first, second and third nights.

7.3.1.3. During the night nursing cover is very stretched so checking on prisoners is therefore reliant on prison officers as well as nurses. Prison officers are not expected to make clinical checks but in order to carry out routine checks they need to know what to look for (and indeed smell and hear) if they are to be capable of deciding whether or not to call for a nurse. Whilst I am not asserting that deaths could have been prevented were this measure in place it is particularly important given the particular risks associated with methadone at night and given the number of deaths in this cohort which occurred during the night.

**Recommendation (2): Guidance for nursing and discipline staff about how to conduct observations (and respond to them) overnight should be reissued and reiterated at regular intervals.**

### **7.3.2. Awareness raising**

7.3.2.1. Prison officers no longer receive formal drugs training but need to have some awareness of what they are looking for if they are to do their job properly. They also need to know what they should be looking for when they do overnight checks (ie during the first five nights), particularly when to get nursing or medical help. This is linked to recommendation one above. Training and briefing on these issues does not have to be by way of a lengthy formal course but can be provided through local briefings delivered by doctors and pharmacists.

### **7.3.3. IT connectivity between prisons and the community**

7.3.3.1. Of paramount importance is electronic contact between prisons and health services in the community. Prison clinicians' inability to communicate on the NHS spine with their community colleagues may be linked to the deaths of prisoners. Prisoners frequently claim to have been prescribed drugs in the community and clinicians in prison have no immediate means of checking this. Nor indeed do they have any electronic means of checking what has been prescribed in police custody prior to arriving in prison. It is critical that clinicians know this before they make decisions about further prescribing.

7.3.3.2. There is now far better continuity of care from the community to prison, between prisons and on release to the community but there remain significant problems with some aspects of this, most notably for clinical staff who need information from the community in order to check what, and how much, prisoners were prescribed (and for what) before being sent to prison. The adoption throughout the estate of SystmOne (the computer-based system which links healthcare between public sector prisons) is good but it needs to connect to the NHS "spine" so that there can be immediate access to medical and nursing information in the community and vica versa.

**Recommendation (3): SystmOne should be linked to the NHS "spine"**

#### 7.3.4. Learning and future developments

7.3.4.1. There is comprehensive guidance available for the management of drug treatment in prison. Indeed the 2006 document Clinical Management of Drug Dependence in the Adult Prison Setting sets out the key risks which still obtain. However there is a need for regular updates to incorporate new learning both from academia ie reflecting new research into drugs treatment, and also learning from prisons and other secure facilities especially from inquests and PPO reports.

**Recommendation (4): Updated guidance, especially the 2006 Clinical Management of Drug Dependence in the Adult Prison Setting, should incorporate new learning from academia reflecting new developments in drug treatment and research into drug treatment.**

## 8. Supplementary issues

8.1. In addition to the major issues set out above there is a series of matters which were raised during the course of the review. These now appear not to be directly or causally related to the deaths but are matters whose improvement would strengthen the quality of treatment and care for all prisoners on IDTS. They are set out below.

### 8.2. Supply, availability of substances and security

## Security

- 8.2.1.1. Too often Health and Security departments in prisons operate in silos. The solution to this is both structural and cultural. They need both to be part of a shared, mandated task which is reflected in prison bureaucracy and is led from the top by the governor.
- 8.2.1.2. The outcome needed could be achieved by a number of means, for example a committee in each prison where Security, Health and Discipline are required together to deliver work on issues of mutual concern such as in-possession medication and the medicine queue.
- 8.2.1.3. If the task is not mandated there is a clear risk that it will not happen.
- 8.2.1.4. All prisons have Security Committees and some also have Drug Strategy Committees. These provide an opportunity for security to invite healthcare to join them and engage in joint work.
- 8.2.1.5. Security departments need to build a dialogue with health. They could spend some structured time with them, maybe shadowing a member of the health team for a day and offering a reciprocal experience.
- 8.2.1.6. The exchange of information between health and security is variable and it is critical that those working on reception, in security and in healthcare communicate openly to share information about which prisoners are thought to have smuggled drugs into the prison and to whom they may be giving them. This does not happen reliably now and yet is important information for a clinician when making decisions about prescribing. This needs to change.
- 8.2.1.7. A consistent theme in Security is that they don't get Security Intelligence Reports (SIRs) or other forms of security information from health. This is an issue which has featured in the background of at least one of the deaths in scope.
- 8.2.1.8. There are some exceptions to this where security staff have worked hard to build a collaborative partnership with health staff and this has happened where security and health staff have worked together increasingly closely and have built mutual trust.
- 8.2.1.9. SIRs are the means by which formal notification of security information is communicated in prison. There needs to be a shared understanding of how these can be used by health in a way which will not compromise patient confidentiality; this should be the subject of explicit dialogue. There is good practice in some prisons (for example Leeds) where health staff are able to complete SIRs and they get a

response broadly outlining the action taken as a result of their information.

8.2.1.10. Some health staff pointed out to me that there is an assumption that they would know how to use the forms, or more fundamentally that they would know where to find them. In some instances neither was true.

8.2.1.11. Clinical confidentiality is more subtle than is sometimes suggested by the discourse in prisons but how it is understood varies enormously. Although I am not suggesting there is a direct causal relationship between this issue and prisoner deaths there is a need for some clear guidance from the Department of Health.

**Recommendation (5): The Department of Health should issue straightforward guidance about how clinical confidentiality should work in prisons.**

**Recommendation (6): Governors must ensure that health and security departments work closely together to generate a greater flow of information between the two in order to improve the work carried out by both departments.**

## Supply

8.2.1.12. The quantities of illicit prescribed and illegal drugs available in prison is a matter of conjecture. I was repeatedly told there were enormous amounts but no one was able to quantify what they meant. It is in the local prisons that the problem is thought to be most acute with their very high turnover of prisoners and lower security and indeed it is in this part of the prison estate that the issue was raised repeatedly with me by front line staff. It should be noted that a high percentage of the deaths in the cohort happened in local prisons.

8.2.1.13. Misusable substances include illegal drugs, controlled, prescribed and 'over the counter' medication, and other illicit or legal products, including solvents and alcohol. It is clear that the total availability of substances which may be misused in prisons is not known either on the national level or in each establishment. For an individual prisoner, substances may be available which are illegal and illegally supplied legal and illicitly supplied, lawfully supplied or illicitly diverted from lawful supplies.

8.2.1.14. Mandatory Drug Tests provide a useful proxy measure and can be changed to include drugs about which there is current concern (for example the recent inclusion of tramadol). However, one weakness with the system is that refusal to take a test does not count as a positive result and thus arguably distorts the usefulness of the results.

I suggest that the results should be published in two versions: one as now and the other including the refusals by deeming them positive drug tests otherwise there is a danger of the results not reflecting reality.

8.2.1.15. Lack of dogs or limited access to them was raised in a number of prisons as a barrier. Certainly there is a perception that their presence makes a real difference both to the integrity of visits but also to staff corruption and prisoners bringing in drugs. However I have no evidence either way of this or of its relationship to the deaths in the cohort.

### **8.3. Substance misuse treatment (including reception / first night) in prison**

8.3.1. The prison service used to be directly responsible for healthcare in prisons. Over the last ten years within the public sector prisons this responsibility has largely been transferred to Primary Care Trusts (PCTs) in England. One of the issues that has been raised repeatedly in this review is the Integrated Drug Treatment System (IDTS) and I therefore include a description of it here.

8.3.2. In Wales the Local Health Boards are responsible for commissioning healthcare in Welsh public sector prisons. Opioid substitution treatment is available to those on treatment programmes pre reception, but as there is no IDTS provision it is not commenced for non-prescribed opiate users and prisoners instead follow a symptomatic relief/detoxification regime during the early days in custody.

8.3.3. In English prisons the Integrated Drug Treatment System was established, first in the women's estate, to provide immediate treatment (comparable to that available in the community) to address the burgeoning problem of prisoners arriving at prisons dependent on alcohol and/or drugs. Although symptomatic relief for withdrawal symptoms had been available to some prisoners, until the advent of IDTS drug treatment in prison did not offer the same range of treatment options as it did in the community. With IDTS the universal availability of methadone and buprenorphine enabled prisoners to receive withdrawal or maintenance medication in broadly the same way they would in the community. IDTS was in part prompted by concern to reduce the number both of suicides in prison (by men and women unable to cope with the process of withdrawal) and of deaths as a result of overdose on release from custody, having detoxified in prison. IDTS also included the use of psychosocial interventions.

8.3.4. PSI 45/2010 setting out the ambitions of IDTS says: "The integrated drug treatment system (IDTS) aims to increase the volume and quality of substance misuse treatment available to prisoners, with particular emphasis on:

- early custody;

- improving the integration between clinical and CARAT Services; and
- reinforcing continuity of care from the community into prison, between prisons, and on release into the community.

8.3.5. The instruction also says that establishments must have a policy agreed between the residential manager, the substance misuse service manager and healthcare manager, for how prisoners known to be suffering from withdrawal (including alcohol withdrawal) should be managed in order to reduce the associated risk of suicide and/or self-harm. The policy was explicitly designed to cover all units where prisoners known to be withdrawing are located, both dedicated units and ordinary wings.

8.3.6. All prisons have “healthcare” provision; this is the medical care provided to prisoners that is not directly related to drug and alcohol dependence. This does not mean that there is no overlap between healthcare and IDTS. In many establishments there is and in some doctors especially are employed in both activities.

8.3.7. CARATs (Counselling, Assessment, Referral, Advice and Throughcare) and health provision are amalgamated within IDTS and in the arrangements post April 2012 CARATs will be integrated into healthcare (though in Wales it will remain the funding responsibility of the prison service).

8.3.8. The same pharmacy services, including the provision of pharmacists and pharmacy technicians, are supplied to both IDTS and Healthcare in each prison.

8.3.9. IDTS has been highly successful in bringing drug treatment to prisoners who previously did not receive treatment in prison that was equivalent to that available in the community. As a result the number of suicides in prison and of deaths following release has reduced since the advent of IDTS. This is confirmed in a report from the National Confidential Inquiry into Suicides and Homicides, University of Manchester. IDTS has exceeded its original ambitions and now has far more prisoners accessing it than was anticipated. However although there may be better integration of CARAT services and clinical services there is still scope for this to improve.

8.3.10. There is evidence in some of the Ombudsman’s reports into “unclassified” deaths that the lack of information about community prescribing (and medical records) available to prescribers in prison had compromised the treatment that prisoners received. Whilst this is not the same as saying there have been coronial determinations citing it as causally related to the deaths it is clearly significant.

8.3.11. Prisoners arriving in prison are often anxious, vulnerable and some will have started to withdraw from opiates, benzodiazepines or alcohol or combinations of two or all of these. It is imperative that there is adequate GP cover so that they are seen on the first night either to have

their withdrawal symptoms managed or to be enabled to continue the methadone or other substance misuse treatment they were receiving in the community. I am, however, not suggesting that lack of GP cover has been related to these deaths. Given the late arrival of some prisoners clinics need to be organised flexibly enough so that they can run beyond core working times.

8.3.12. A prisoner's experience in reception sets the tone for the whole of the prisoner journey and the assessment that takes place there is critical. Given the difficulties of communicating with the community there can be a tendency to rely too much on prisoners' account of what they have been prescribed. There should be improved availability of community physical and mental health information for prisons (see recommendation re IT).

8.3.13. Experienced clinicians described their own approach to me as investigative and cautious. The guidance (DoH: Clinical Management of Drug Dependence in the Adult Prison Setting 2006) is clear that methadone should be prescribed in very small doses at this point but in discussion with doctors and nurses it appears that practice varies from prison to prison, probably more accurately from prescriber to prescriber with some being over cautious and others exceeding the guidance.

8.3.14. GPs in prison, as elsewhere, are clinically accountable for what they do. Whilst unprepared to take risks by not prescribing anything, some experienced doctors prefer to give symptomatic relief rather than prescribe methadone or benzodiazepines (or both) before getting corroboration of the prisoner's account from a doctor in the community and/or establishing that there are observable withdrawal symptoms.

8.3.15. The rationale for this, latter, approach, is understandable. Others choose to prescribe more than the guidance suggests.

8.3.16. This suggests to me that there is an urgent need for discussion about how to manage this tension safely and that the guidance should either be revised or reiterated as best practice given the range of practice which now obtains. It is an issue which is referred to in some reports by the Ombudsman and has the potential to be causally related to the deaths of prisoners in this cohort.

**Recommendation (7) Prescribing guidance for the first night in prison should either be revised or reiterated as best practice to achieve greater consistency across the prison estate.**

#### 8.4. Assessment and stabilisation

8.4.1. It is on the prisoner's second or third day of opioid stabilisation that there is a heightened risk of overdose/toxicity. Prisoners should, following the guidance, be monitored carefully both during the day and night. The

environment is challenging at night but it is vital that the checks are done properly as to leave a patient all night without being monitored properly (as set out in the prison service and Department of Health guidance) is not safe.

8.4.2. There must also be absolute rigour about the clinical reviews carried out on day three. Not only must they happen but they must be real. It is clear from my discussions with staff that neither overnight checks nor reviews are reliably or consistently compliant with the required standards. The overnight checks issue is dealt with in the recommendation in the section above on the first night.

8.4.3. The quality of reviews should form part of the contract and the commissioned service. Inconsistent quality of reviews is not I think directly related to the deaths in scope but an improvement in this would markedly strengthen the delivery of services to all prisoners.

**Recommendation (8): The scrutiny of the quality of reviews should be part of the contract/commissioned service and therefore part of the contract review process.**

8.4.4. I will not repeat here the recommendation about staff briefing and training on checking of prisoners in their cells (see recommendation 2 above) but the same point obtains, that staff need this on a regular basis.

## **8.5. Clinical workforce (including training)**

8.5.1. A widespread complaint is that there are too many agency nurses and locum doctors working in prison health. Lack of familiarity with the setting or experience of drug treatment does lead to differing prescribing approaches.

8.5.2. Whilst it is accepted that some work in the prison for extended periods and become experts, the experience of lack of awareness and low levels of confidence in the prison setting is something that I was repeatedly told was problematic.

8.5.3. The Department of Health has offered to provide some awareness training for GPs who work in prisons on safer prescribing in prisons to coincide with the publication: The Safe Management and Use of Controlled drugs in Prison Health in England (National Prescribing Centre) February 2012.

8.5.4. A longer term ambition should be to raise the status of prison medicine and nursing, and to create a stable and permanent staff group in healthcare in each prison but fully linked to the community (a minimum percentage of permanent staff should be a contractual obligation for the provider). Although a secure setting/prison healthcare specialism holds some

attractions and might go some way to creating higher status it risks recreating the problems of the past.

- 8.5.5. GPs in prison should not be expected to be experts in all areas of medicine. Prison healthcare can be enhanced by having specialist clinics led by a clinician who comes to the prison purely for that clinic eg pain management, sexual health, HIV/Hep C; bringing in such expertise will also raise the status of prison medicine.
- 8.5.6. Links with the community need to be strengthened not just to ensure a smooth and safe transition for offender patients but also to achieve equivalence of treatment for offenders in custody; this principle is fundamental to the partnership between health and NOMS and should govern all treatment which prisoners receive. This means that doctors need to keep up to date both through training and current connection with the wider world of community medicine and maintaining some work in the community is vital to that.
- 8.5.7. Prison medicine is different in a number of ways and does not enjoy high status in spite of the experience and skill required to do it well. One solution may be the creation of some form of prison medicine accreditation for GPs and I think there is merit in the Department of Health exploring the possibility of accreditation for practitioners of prison medicine.
- 8.5.8. Experience in some prisons suggests that links with local universities which train nurses can help raise the standard of nursing in prison and ease the problem of recruitment. There is good practice in HMP Bristol where students have tours of the prison so that they see the work that takes place there and see the opportunities, student nurses do placements in healthcare and often wish to stay on as permanent staff.
- 8.5.9. All medical and nursing staff need to keep up to date and to be developed professionally and it is of course also incumbent on individual professionals to maintain their own professional practice, knowledge and performance.
- 8.5.10. I was repeatedly told by commissioners and healthcare staff that that they are not treated as full partners in symbolic ways: the time it takes to get security clearance, the time it can take to be collected from the gate, the lack of understanding that locums may have other jobs to go on to so can't be kept waiting or stay beyond their contracted time without renegeing on an agreement with a third party.
- 8.5.11. This may discourage some very good locum doctors and agency nurses from attempting to become permanent staff. Of course prisons are and must remain secure environments and therefore who gets passes and keys must be regulated. However the slow pace at which approvals are processed undermines partnership working and may serve to deter the very people from working in the prison who should be encouraged to do so and I

therefore think that NOMS should improve the process for processing applications for keys and passes for so that it becomes quicker.

## 8.6. Pharmacists

8.6.1. In house pharmacists and pharmacies have a vital role in prisons, particularly in the local prisons with their rapid turnover of drugs and prisoners. Some prisons simply have external pharmacy services with drugs delivered to the prison.

## 8.7. Discipline workforce (including training)

8.7.1. There is some evidence that discipline staff are not clear about the matters that should make them get medical or nursing help to prisoners. This is related to some of the deaths in that most of the cohort died during the night and many were receiving overnight observations.

8.7.2. The safe management of healthcare in prison requires a range of training to be provided for all staff involved in the process, from officers and nurses on the front line right up to and including the governor.

8.7.3. Governors are responsible, with health, for the governance of the health services provided in prisons and they need to be more confident of their responsibilities as co-commissioners. This is not causally linked to deaths in prison but to get the best from health this work needs to be more consistently managed and this will be helpful preparation for a future in which commissioning will become fundamental to provision of services.

**Recommendation (9): NOMS/Offender Health should be clear about governors' responsibilities for healthcare so that governors know what their responsibilities are and what mechanisms they can use if changes need to be made.**

## 8.8. Prescribing

8.8.1. A constant dilemma for clinicians in prison is the degree to which prisoners should be allowed to have their medicine in their possession. The more that is in possession the greater the potential for diversion. Diverted medicines have featured in the background of a number of "unclassified" deaths but although mixing drugs in this way is clearly unwise it does not mean they were causally related to the death(s) and the Professors in their report about the toxicology and pathology reports suggest that this was not a key feature of the deaths. There is extensive guidance about prescribing and the management of drug treatment both in and outside prison.

8.8.2. In May 2003 the Department of Health and HM Prison Service jointly published 'A Pharmacy Service for Prisoners'. This document sets out the

development of more patient focused, primary care based pharmacy services to prisoners, based on identified need. (This has not been formally adopted in Wales but the principles underpinning the policy direction have guided developments in Welsh prisons in the ensuing years). It recommends that in-possession medication should be routine where possible for the treatment of some specific clinical conditions and that risk assessment should identify if in possession is not appropriate.

8.8.3. In relation to service provision, the principal conclusions of the report were as follows:

- Pharmacy services to prisoners should be patient focused, be based on identified patient needs, and support and promote self-care
- Developments in medicines management in the NHS, including repeat dispensing and medication review, should be reflected in pharmacy services provided to prisoners
- All prisoners should have appropriate access to a pharmacist or pharmacy staff
- Medicines in use should normally be held in the possession of prisoner unless there are clearly indicated individual factors why this should not be the case

8.8.4. In August 2005 the National Prescribing Centre published 'Medication in Possession: A guide to improving practice in secure environments' to support all prisons in England and Wales, and their local primary care organisations, in developing and implementing local policies for medication in-possession. The guidance aims to support local prison health partnerships to move, in a managed way, to the default position where patients in prisons normally hold and use their own medication.

8.8.5. PSI 45/2010 however says that no tradeable medication should be held in possession. There is a tension between the health imperative to get patients to take control over their own health (and therefore be in command of their own medication) and the security/custodial imperative not to create opportunities for the diversion of controlled medicines or medicines that can be traded.

8.8.6. The tension is one that will always be there. Its resolution lies not in further guidance but rather on a mature partnership between healthcare and security in each prison. Each establishment will need their own in possession approach and guidance for prescribers which is compliant with the overarching national guidance but is customised to the particular circumstances that obtain in that prison. It will need to be reviewed on a regular basis as circumstances change, for example to reflect the drugs which are popular with prisoners at that time.

8.8.7. This does require a joint forum or committee at which extensive and continued joint work should be undertaken by security, prescribers, pharmacists and residential staff. A robust formulary and regular

monitoring of what is being prescribed are vital for the safe and successful management of in-possession medication. These need to be supported by regular review, audit and to be supported by medicine checks and cell searches. It should be complemented by the same group's work on the management of the medicine queue.

8.8.8. Despite widespread acceptance that the introduction of IDTS has been associated with a reduction in the numbers of deaths in the early days in custody and that it is a successful programme I encountered some ambivalence about some aspects of IDTS both among prison staff and governors but also among stakeholders. Although the benefits and improvements it has brought about are appreciated there is concern expressed by some governors that prescribing is over generous and even more significantly is extended for periods of time that are not justified.

8.8.9. Pharmacists can be asked to review the quantity of drugs being prescribed in the prison and to assess with security just how extensive is the problem of an illicit economy of drugs prescribed within the prison.

## 8.9. Clinical reviews

8.9.1. In most prisons visited I was told that there were regular reviews of prisoners' medication. However there was less confidence about the content of those reviews, reflecting a concern that too many of the reviews appear to be a paper exercise in which too few prisoners had their prescription altered. I cannot evidence this but it is what I was told repeatedly. Whilst this is not directly linked to prisoners' deaths the current state of practice is a weakness and its improvement would benefit the service provided for all prisoners.

**Recommendation (10): The regular audit of reviews (ie both process and content) should be part of the contract and commissioned arrangements for healthcare.**

8.9.2. This was often linked with concerns about the levels of methadone prescribed and for how long. The "dear colleague" letter of 31.3.10 from Richard Bradshaw, Rosanna O'Connor and Michael Spurr should be reiterated as it reflects the prescribing practice most practitioners said should be followed (ie immediate stabilisation, followed by maintenance for the first six months but beyond that no automatic assumption this should continue) but nowhere was this letter quoted as accepted practice. Most of the deaths occur early in the prisoner's sentence so concern about continued prescribing of methadone over time is potentially restricted to very few deaths in this cohort.

**Recommendation (11): the "dear colleague" letter dated 31.3.10 (see above) should be reiterated/reissued.**

## **8.10. Managing the prisoners expectations**

8.10.1. A recurring theme in discussions with prison staff, and this is echoed in comments from the Ombudsman, is the pressure that prisoners can put on doctors to prescribe drugs which can be traded and for which there may be questionable clinical justification. This is said by some staff to contribute to an atmosphere in which it is difficult to refuse prisoners' requests for medicines even if clinically that may be indicated.

8.10.2. A more forensic approach to prescribing drugs for old injuries or chronic problems, especially painkillers, anti-epilepsy drugs and anti-depressants should be promoted. There is good practice for example at Leeds where extensive enquiries are made to establish the aetiology of the problem for which drugs continue to be sought by the prisoner. It may be that greater use of pharmacists (see 8.6.1) would be helpful with this.

8.10.3. The recently issued guidance on prescribing in prison (Royal College of General Practitioners: Safer Prescribing in Prisons. November 2011) has been widely welcomed and could be further disseminated.

8.10.4. There is good practice in some prisons where prescribing is discussed with the prisoner in the context of his or her wider activities. So for example if a prisoner wishes to continue to use the gym, their continued prescription for painkillers is queried. That is not to say that if they are in pain they should not receive relief but the nature of that relief may need to be changed from a drug which is commonly traded to one that is not. This is a good example of (recommendation 5) health and discipline staff creating clear benefits by working together.

8.10.5. Also the use of healthier alternatives approaches/pain management clinics which are appropriate for the prison setting should result in more rational prescribing.

## **8.11. The medicine queue**

8.11.1. The position at the moment is unsatisfactory. Most staff in the management of the queue see it as low status work. In some prisons there is excellent co-operation between the different disciplines who co-operate to manage the queue effectively and they work out their respective responsibilities but that is far from universal.

8.11.2. The medicine queue is one of the obvious points for diverting prescribed medicines and the lack of a clear grip on this undermines the authority of the prison and frustrates those staff who have to try to manage the consequences. There have not been any coronial determinations on this point but compromising the treatment a patient should receive by diverting his or her medicine may have the potential to be related to the death of that prisoner (or of another to whom the medicine is diverted).

8.11.3. I appreciate that what I am proposing runs counter to the current preference for less central guidance but staff raised the need for this repeatedly with me. There is a need for clear instruction and guidance from the top on managing the medicine queue with roles and responsibilities clearly delineated (across security, healthcare and discipline) and it needs to be core prison work (which is profiled), not an activity which relies on goodwill and opting in.

**Recommendation (12): National guidance should be drawn up by NOMS and OH setting out the tasks to be done on the medicine queue, who should do them and how. The work should be “profiled” as a core part of the prison regime.**

## 8.12. The National picture

8.12.1. This issue is not directly linked with the deaths of prisoners but properly managed would be a protective factor. The National Health Service Commissioning Board which assumes its responsibilities in 2013 in England provides an opportunity for mandating auditing of prescribing and it can require data on what is prescribed in the prison estate.

8.12.2. The role of the accountable officer for drugs (each PCT has one post-Shipman) is key. Part of their role is to review, audit and monitor controlled drugs activity in prison. The accountable officer is concerned with the safe storage and management of controlled drugs. They may not have the capacity to oversee individual prescribing decisions but a relationship with prison pharmacy is essential. No one mentioned them in any of my visits though when asked some staff knew who it was. This suggested their profile/role within prison wasn't as developed as it might be.

8.12.3. As far as I am aware there is no national oversight of the quantities of drugs prescribed across the prison estate. Whilst it would not be possible to mandate an approved level of medication it would be useful for establishments to be able to benchmark themselves against other similar establishments. Anecdotally it would appear that the range is enormous. Cat C prisons have complained that many prisoners are arriving with extensive prescriptions. The implication is that they are prescribed too much.

8.12.4. The number and quantity of different medicines should be addressed by:

- individual prisoner medication review and
- audit of the prison population (looking from either the individual disease or groups of disease perspective, or from particular drugs -looking at best clinical practice around prescribing, monitoring, and rationalisation of drug

treatment)Some of this can be done on SystemOne if prisons use the prescribing module.

### 8.13. Pharmacy

8.13.1. The link between the work done in prison pharmacies and protecting prisoners is clear. Whilst there cannot be evidence that this has prevented deaths, from the account of prison pharmacists they frequently talk to doctors about the advisability of what they have prescribed. They describe an overwhelmingly positive response to this from the prison GPs.

8.13.2. It is pharmacists' professional requirement that they challenge prescribing which they believe to be unsafe or unwise; this puts them in a qualitatively different position from staff in other disciplines as they can and do question prescribing decisions.

8.13.3. Pharmacists can be also be used to do drugs training for prison staff who no longer receive this centrally.

8.13.4. They understand both the security and healthcare cultures so are a good bridge or ambassador between the two and can work with both to improve the establishment's in-possession medication arrangements and the management of the medicine queue.

8.13.5. In some prisons it is established good practice that prison governors ask pharmacists to monitor what drugs in what quantities are being prescribed and that information is used in a performance management and review meeting with the providers of healthcare.

8.13.6. Any national commissioning service specification models need appropriate pharmacy contributions to help deliver good medicines management, including the requirements of 'A Pharmacy service for Prisoners'. Pharmacist services, especially those on site, contribute significantly to improved governance of medicines use in prisons

8.13.7. By extension pharmacists should also be asked to review prescribing across the prison estate through the offices of the National Health Service Commissioning Board. This is not directly linked to prison deaths but its improvement would strengthen attempts to be more rigorous about what and how much is prescribed across the prison estate.

**Recommendation (13): The NHS commissioning board, as part of its responsibilities for national patient safety, should consider auditing prescribing practice in prisons. Pharmacists with secure environment expertise should be asked to review this data. The corollary of this is that The NHS commissioning board should mandate each outpost/commissioning unit to have a medicines management committee**

**whose job it will be to audit prescribing and medicines; this will require pharmacy expertise.**

#### **8.14. Population management**

8.14.1. As prisoners move out to main wings or to the hospital wing there is less scrutiny of their activities and less observation of their physical state. This presents greater opportunities for consumption of illicit drugs and a greater chance that a prisoner's physical deterioration will not be noted so quickly. Transfers to and from other prisons and to court present the same issues.

8.14.2. I have considered whether in these circumstances there should be something which alerts staff to the fact that a prisoner is taking methadone and that they need to alert healthcare if they notice him or her exhibiting symptoms of overdose or detoxification. This I think should be part of the further exploration by the Department of Health of the issues which emerge from this report.

#### **8.15. Governance / equity of access**

8.15.1. The National Partnership Agreement between the Department of Health and the Home Office for the Accountability and Commissioning of Health Services for Prisoners London 2007 is an over-arching agreement between the Secretary of State for Health and the Home Secretary for and on behalf of Her Majesty's Prison Service. It is intended to underpin and complement the local partnership arrangements between NHS Primary Care Trusts and public sector prisons.

8.15.2. The National Partnership Agreement is based on the following principles:

- Accountability for the commissioning of health services for prisoners is to be held by the National Health Service, as for all other citizens
- Equity of access to health services for prisoners in keeping with services provided to the local community
- Shared responsibility between the NHS and HM Prison Service for the development of health services to prisoners on the basis of assessed need.
- Best use of available resources
- Continuous service improvement

#### **8.16. Clinical audit and clinical governance**

8.16.1. Prison Health Performance and Quality Indicators (PHPQIs) allow commissioners to assure themselves that services provided are designed following an appropriate assessment of need and judged against a measurable improvement in health indicators in the population in prisons.

Although these are completed in all prisons (through self assessment) the system is voluntary and does not form part of the Prison Performance Hub. Governors are not rewarded for medical activity as it is not deemed “purposeful”.

8.16.2. Whilst in theory prison medical services and IDTS are audited alongside community provision by the PCT, in practice there is little audit and few governors are able to say how they would know if the services provided in their prison are good enough. Clinical governance, audit and assurance should all be part of what is contracted. They can therefore form part of the governor’s regular contract management/performance management of the services.

8.16.3. The guidance issued by Department of Health in March 2010 to accompany the “Dear Colleague” letter from the Department of Health and NOMS about clinical reviews says: “It is good clinical practice to undertake regular audit of all clinical practice. The regular review of individuals on opiate substitute maintenance prescription is an excellent example of audit. The gold standard being that opiate substitute maintenance prescribing occurs in line with clear evidence based criteria with records of regular reviews, at a minimum of every 3 months and outcomes shared with patient and multidisciplinary team clearly written in notes”

8.16.4. S5.4.5 of The Safe Management and Use of Controlled drugs in Prison Health in England (National Prescribing Centre) February 2012 says “It is the duty of service commissioners to performance manage the commissioned services and where areas of clinical practice are not in accordance with national guidance this should be addressed through the service review process”.

## 8.17. **Commissioning and contracting**

8.17.1. The inception of the NHS commissioning board from 2013 increases opportunities to make good some of the shortcomings of the present arrangements. Whilst remote from individual prisoners deaths the improvement of what is commissioned will generate greater equivalence of healthcare in prison with the community.

**Recommendation (14): NOMS and health should co-commission prison healthcare and a number of issues about which there is an understandable lack of confidence across much of the prison estate and among stakeholders should be built into this. They include:**

- **audit**
- **quality control.**
- **training of doctors and nurses and**
- **the minimum permissible percentage of permanent staff in any contracted service**
- **the continued presence of psychosocial interventions now that CARATs are being absorbed into mainstream drug treatment provision (except in Wales where they will remain separate)**

**• In their contract with GPs the PCTs and their replacement bodies should be requiring them to regard requests for documents from prisons as a high priority and delays should not be acceptable.**

#### **8.18. Constraints within the prison environment**

8.18.1. Generally both the technical infrastructure and technological innovation in prisons is limited but there is an expectation of lots of practice innovation. Understandably governors can feel they are not given the tools for the job they are required to do.

8.18.2. These are important matters but of much more immediate concern is the access to and management of electronic information. Heads of healthcare need to make sure that locum GPs and agency nurses know how to use the IT system properly. It is not what they are used to but it's vital they complete records immediately and accurately.

#### **8.19. Learning**

8.19.1. Coroners' verdicts and rule 43 letters contain valuable learning which can assist the building of good practice to prevent deaths. There needs to be a more joined up approach after inquests so that promulgating valuable learning from them is not purely the responsibility of the prison service (who are sometimes criticised for not doing this as well as they might).

8.19.2. It would be helpful if Rule 43 letters were to go not only to NOMS but also to the Department of Health which does not get information from coroners or from the Ombudsman which might assist them to learn from deaths in custody. They would very much welcome (anonymised) toxicology/pathology reports, Rule 43 letters and coroners' verdicts from which to draw lessons and to inform future guidance and practice.

8.19.3. In Wales too coroners' Rule 43 letters and the Ombudsman's reports are not sent to the Local Health Boards or to Health Department in the Welsh Government.

#### **8.20. Guidance**

8.20.1. The extent to which the guidance is followed varies and suggests that although there is further guidance needed and some needs to be updated, particularly the principal guidance (Clinical Management of Drug Dependence in the Adult Prison Setting 2006) the pressing issue is not more guidance but greater compliance with what is expected in the guidance.

8.20.2. It is beyond the scope of this review but it was suggested to me that there should just be one body of guidance, the Orange Book, and that that should be amended to incorporate guidance for secure environments,

including prison. This, it is argued, would obviate the need for any separate guidance about treatment regimes. This is the guidance currently followed in Wales.

## 8.21. The NOMS classification of deaths system

8.21.1. Although it is beyond the scope of this review it is notable that a number of people to whom I talked commented that the classification system itself was problematic. Most suggested that having a category called “unclassified” was not helpful. It has been suggested that “unexplained deaths pending investigation and coroner’s determination” might more accurately convey why the deaths are “unclassified”. Such a description would also locate the responsibility for resolving the position with those institutions responsible in law for this. An alternative would be simply to use the four substantive categories using “other/non-natural” where there is real uncertainty as to the cause of death.

## 9. Conclusion

9.1. I was asked to undertake a review of the policies and procedures relevant to unclassified deaths in prison custody and to make recommendations.

9.2. Conducting the review has presented the temptation to widen the scope of the review and examine prison and health issues that go far beyond the issues directly relevant to the deaths of the men and women in the “unclassified” cohort.

9.3. The results of the toxicology and pathology reviews and the writers’ conclusions have assisted me in reducing the priority recommendations to four areas which I believe are most closely related to the issues at the heart of the deaths in custody of this cohort. These largely revolve around how prisoners are managed at night and what information clinicians and discipline staff need to manage them safely.

9.4. IDTS has brought about a real transformation of substance abuse treatment for prisoners. This must not be reversed but needs to be built upon. There is a danger that in asserting that a significant percentage of these deaths are related to the use of methadone, that the merits of IDTS may be questioned. This review does not say that and indeed IDTS is and has been successful in reducing the numbers of deaths in custody and its implementation has provided much-needed treatment for prisoners in England suffering substance misuse problems.

9.5. It is also clear that these deaths are not attributable to suicide.

9.6. Clearly one must be cautious about drawing over-firm conclusions from what was necessarily a review of a relatively small number of deaths in custody but there are some clear practice recommendations that flow directly from the

conclusions of the toxicology and pathology reviews and also confirm what practitioners in prison, and other experts, said needed to happen.

9.7. The subsidiary recommendations set out in the report do not flow directly from the additional reviews, although they reflect very much what staff in prisons and others told me and what I saw myself, but they would provide assurance and improved services for all prisoners on IDTS and learning for those providing services to prisoners in Wales where there is no IDTS.

9.8. It would be wrong to advocate fundamental change of the current system from a small survey but I suggest there would be merit in continuing to explore why prisoners who have received drug treatment in prison die and how this compares with what happens to those receiving substance misuse treatment in the community.

9.9. This together with further work by the Department of Health to harness the best available academic and research knowledge about developments in drug treatment should ensure that we can be confident that everything possible is being done to minimise this loss of life of these predominantly young men and women.

## **10. Which bodies and organisations are involved in the work described in the recommendations?**

- Public and Private prisons
- NOMS
- Department of Health
- Welsh Government
- PCTs
- Local Health Boards
- NHS (National) commissioning board and its local “offshoots”
- Coroners’ Society
- Prisons and Probation Ombudsman

## **11. Bibliography**

Kim Wolff: Characterization of Methadone Overdose: Clinical Considerations and the Scientific Evidence. Therapeutic Drug Monitoring 24:457–470 © 2002

Nat Wright: The Offender and Drug Treatment

The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness: A National Study of Self-Inflicted Deaths in Prison Custody in England and Wales from 1999 to 2007. April 2011:

<http://www.medicine.manchester.ac.uk/mentalhealth/research/suicide/prevention/offenders/reports/prisoncustodyselfinflicteddeaths.pdf>

**Annex A: Terms of Reference**

To undertake a review of the policies and procedures relevant to unclassified deaths in prison custody and to make recommendations.

## **Annex B:** Literature and guidance considered by the Review

- Prisons and Probation Ombudsman reports on all “unclassified” deaths in custody 2010-2012
- Disrupting the supply of illicit drugs into prisons. A report for the Director General of National Offender Management Service David Blakey May 2008.
- Ministry of Justice. The Government’s response to the Blakey Review: “Disrupting the Supply of Illicit Drugs into Prisons” July 2008.
- The National Partnership Agreement between the Department of Health and the Home Office for the Accountability and Commissioning of Health Services for Prisoners London 2007
- Department of Health: Drug Misuse and Dependence. UK guidelines on clinical management 2007 (orange book)
- Department of Health: Clinical Management of Drug Dependence in the Adult Prison Setting, Including Psychosocial Treatment as a core part. November 2006
- NOMS/DOH Prison Health Performance and Quality Indicators May 2009
- Department of Health/NOMS “Dear Colleague” letter of 31.3.10 from Richard Bradshaw, Rosanna O’Connor and Michael Spurr about clinical reviews
- Department of Health guidance to accompany “Dear Colleague” letter about clinical reviews. March 2010.
- Prison Service Instructions on the management of IDTS and drug testing especially PSI 31/2009 Compact based drug testing and PSI 45/2010 Integrated Drug Treatment System
- Memorandum of Understanding between Coroners’ Courts and the Prisons and Probation Ombudsman 2009
- National Prescribing Centre: Medication in-possession. A guide to improving practice in secure environments. August 2005
- National Prescribing Centre: Safe Management and use of Controlled Drugs in Prison Health in England February 2012
- Royal College of General Practitioners: Safer Prescribing in Prisons. November 2011
- The Offender and Drug Treatment: Making it work across prisons and wider secure environments. Nat Wright with Dave Marteau and Jan Palmer 2010.

## **Annex C: Review of Toxicology and Pathology Reports**

### **Sudden Unexpected Deaths in Custody**

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Professor Richard Shepherd, BSc, MB, BS, FRCPATH, FFFLM

**11 April 2012**

#### **1. Executive Summary**

- Out of 20 sudden, unexpected deaths that occurred in prison in England July 2010–end 2011 ('unclassified' deaths on the NOMS system pending inquest) that were sent for review and in which full information was available, 17 (85 %) were methadone-related.
- Methadone is slowly absorbed, has a long plasma half-life, and is particularly toxic at night.
- In 13 of the 17 methadone-related deaths in this survey the patient was either found dead first thing in the morning, or in one case could not be roused in the morning ('snoring heavily'). The other 4 methadone-related deaths occurred within 3–7.5 hours of likely their last methadone dose.
- More education as to warning signs of likely methadone toxicity (daytime or excessive drowsiness, snoring, nausea/vomiting, signs of impending bronchopneumonia and/or liver disease) could help to minimise the risk of unexpected death in patients given methadone.
- Use of buprenorphine rather than methadone in opioid-dependent patients could help further minimise the risk of sudden, unexpected death in prison.
- Drug abuse treatment/maintenance regimes in prison must take into account the likely consequences when prisoners are released.

#### **2. Introduction**

We have been tasked to (i) review the toxicology and pathology reports of a number of sudden, unexpected ('unclassified' on the National Offender Management Service (NOMS) system for classifying deaths) deaths that occurred in prison in England since

July 2010 and (ii) set out any themes or common threads that might suggest areas to work on to reduce such deaths.

The National Offender Management Service (NOMS) system for classifying deaths in prison, pending the coroner's verdict, uses four categories based on apparent cause:

- Natural causes
- Self-inflicted
- Homicide
- Other/non-natural

There is also, for those deaths where there is not an immediate apparent cause, an 'unclassified' category. This is an informal classification system that allows NOMS to track the number and nature of deaths in prison before coroners record their verdicts since at that point all prison deaths are formally classified.

The process of the examination of all deaths in prison requires that HM Coroner is involved and, in all but extremely rare cases, a post-mortem examination will be performed. In most cases the cause of death will be immediately apparent – myocardial infarction ('heart attack'), cancer, suicide, etc. and the pathologist will often be able to inform the Coroner of their conclusion immediately. In those cases where the cause of death is either not natural, or is not established at the post-mortem examination then further tests – usually toxicology and histology – will be performed and the Coroner will be informed that the cause of death is 'pending the results of further tests'. It is these deaths that initially populate the 'unclassified' category used by NOMS. In the general population many deaths also fall into the 'pending results' category, i.e. there is nothing either unusual, or concerning that a cause of death is not immediately obvious. Indeed, a number of 'pending' initial reports are to be expected if thorough and complete investigations into sudden deaths are being performed on behalf of the Coroner.

Eventually, the results of the toxicological analyses will become available, histology slides will be examined, the results of other, less usual, tests will be produced, and the pathologist will be able to form a view as to the cause of death based on all of the evidence. Very few deaths will remain 'unclassified' at the end of this process.

Given the genesis of these ‘pending’ or ‘unclassified’ deaths some annual variation in overall numbers is to be expected and any simple numerical analysis should be related to the size of overall prison population in any year.

This review was prompted by an increase in the number of ‘unclassified’ deaths in prison in recent years. The number of deaths deemed ‘unclassified at the end of the last three years were as follows:

Number of unclassified deaths	
2009–2010	0
2010–2011	15
2011–2012	20

During the two-year period 2010–end 2011 there were 60 deaths that were at one point deemed ‘unclassified’, but by the end of 2011 only 25 cases remained in this category.

### **3. Method.**

Post-mortem examination reports/toxicology reports, or related documents such as the death-in-custody (DIC) report, relating to ‘unclassified’ sudden, unexpected deaths that occurred in prison in England, July 2010–end 2011 were supplied.

### **4. Results**

Details were received of 21 ‘unclassified’ deaths in prison, July 2010–December 2011 (four cases became unclassified too late to be included in the survey hence were not studied further). Of the 21 cases studied (Table 1), only a cardiology report was available in case 15. There was no toxicology report in case 10<sup>3</sup>.

#### **4.1. Role of Methadone**

In 17 (85 % of deaths with full information) instances methadone (average concentration 0.48, median [range] 0.42 [0.16–1.40] mg/L) was present in post-mortem blood.

In 13 of the 17 methadone-related deaths the patient was found dead ‘in bed’ or ‘in cell’ first thing in the morning or in one case could not be roused (‘snoring heavily’) in the morning and was later (10:30) found to have stopped breathing.

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<sup>3</sup> Full details were unavailable in one case, so the final cohort was 20.

One report (case 11) included this comment: 'It appears that he had been started on a methadone detoxification programme [Date] and since then he had been found by prison officers asleep on at least 20 occasions. This had not happened prior to this treatment'. This patient was given a dose of methadone at 14:00 and was found unresponsive at 16:30 having been last seen alive 40 min beforehand.

The other times when the patients were discovered were 12:10 (no information on when methadone given), 12:20 (methadone prescribed morning only, last seen alive 09:30), and 21:20 (last methadone dose 14:30).

#### *4.1.1. Exacerbating Factors*

Other drugs (notably chlordiazepoxide and metabolites, diazepam, and tramadol) were also mentioned in a number of reports of methadone-related deaths, but these drugs are very safe in normal use and the post-mortem blood concentrations when measured were invariably consistent with normal use of these compounds.

One methadone related death (post-mortem blood methadone concentration 0.27 mg/L) was attributed to acute lobar pneumonia, although histology only noted 'early acute bronchopneumonia'. Bronchopneumonia is a recognised complication of methadone treatment (Drummer et al., 1992; Corkery et al., 2004). Tracheobronchitis was cited together with methadone toxicity (post-mortem blood methadone concentration 0.46 mg/L) as the cause of death in a further case.

Ischaemic heart disease/coronary artery atherosclerosis was recorded in two methadone-related deaths, in one case to the exclusion of methadone as a contributory cause of the death given that the patient had been complaining of a set of symptoms highly suggestive of angina in the days before death. However, ischaemic heart disease/coronary artery atherosclerosis are causes of death that can only be arrived at in the presence of significant coronary artery disease and by excluding all other potential causes of death – in the case of the massive dihydrocodeine overdose (Case 3, Table 1) the post-mortem report stated categorically that the prescribed drugs, which included dihydrocodeine, had nothing to do with the death, as discussed below (Section 4.2).

The highest post-mortem blood methadone concentration (1.4 mg/L) was reported in a patient with end-stage cirrhosis (methadone is metabolised in the liver under normal

circumstances), suggesting that methadone toxicity was the immediate cause of death, with cirrhosis as an associated disease process.

#### **4.2. Non-methadone Deaths**

One death clearly resulted from a massive dihydrocodeine overdose as noted above (assuming of course that the toxicology report is accurate). No other drugs were detected in post-mortem blood. The patient was prescribed 540 mg/day dihydrocodeine. There is no record of methadone prescription. It is of note that the pathologist submitted their report giving the opinion as to cause of death before the toxicology report was available. It is likely that this opinion will be amended at inquest.

#### **4.3. Other Deaths**

Full assessment was not possible in case 15 as full information was not available. This patient did give a history of chest pain some 3 h before being found dead. There was no hint of methadone involvement in the cardiology report supplied.

### **5. Discussion**

In 2009 there were an estimated 330,000 drug users in the UK, most taking heroin and crack cocaine, of whom 180,000 received treatment. Information suggests that there were some 20,000 people in prison receiving methadone in 2009

(<http://www.independent.co.uk/life-style/health-and-families/health-news/the-big-question-is-methadone-being-overprescribed-as-a-treatment-for-drug-addiction-1837156.html>).

In 2009 and 2010 there were 2878 and 2747 dependent drug abuse-related deaths from acute poisoning (a very broad classification that includes suicide and murder/manslaughter with, for example, heroin) in England & Wales (ONS data). These data include 408 and 355 methadone-related deaths, respectively, many of which will have been accidental deaths.

Methadone is normally taken by mouth. It is relatively slowly absorbed from the gastrointestinal tract and once absorbed, has a long plasma half-life. This means that not only may the onset of action of the drug be delayed, but also once absorbed its duration of action is prolonged.

Methadone-related deaths occur under a variety of circumstances. Some occur when people who have no tolerance to methadone or to related opioid drugs such as heroin

ingest a 'normal' dose of the drug. Even when tolerance has been acquired through prior use of methadone/heroin, tolerance is quickly lost if there is a period of abstinence, even a few days of abstinence.

Some methadone-related deaths occur as a result of injecting the drug. Some deaths also occur in people who have been taking opioids regularly and have taken methadone by mouth for months or even years

It is not possible to assess tolerance to methadone post-mortem. Thus, whilst toxicological analysis can confirm methadone exposure prior to death and give an indication of the magnitude of exposure, interpretation of quantitative blood methadone measurements has to take into account the circumstances of the death (history of recent opioid use, mode of administration, circumstances under which death occurred, etc.).

Methadone is particularly toxic at night. Not only does methadone act to depress respiration, i.e. to depress the supply of oxygen to the brain, but also methadone reduces or eliminates the normal drive to re-commence respiration or increase the rate once diminished (Wolff, 2002). There are many cases on record of people having been heard snoring in the morning after having taken methadone, but once arousal is attempted they are found to have irreversible brain damage due to a period of inadequate oxygen supply overnight. Any form of significant respiratory disease from asthma to pneumonia has the potential to reduce respiratory effectiveness in the presence of methadone.

In summary, the simple fact of methadone exposure is a risk factor for unexpected death even in an apparently healthy adult who has been using the drug regularly as prescribed. Whilst there is no 'fatal' blood methadone concentration, toxicological analysis can confirm the fact of recent methadone administration. If the blood methadone concentration is particularly high (over 0.5 mg/L or so), this adds weight to the argument that a death was methadone-related if other likely causes of sudden death have been excluded.

Guidelines for methadone administration stress the importance of checking for features of toxicity before dispensing methadone. For example: 'Ensure patient is fully alert, responding appropriately and that there are NO signs of drowsiness/sedation; withhold medication in the event of any concern':

[http://www.nta.nhs.uk/uploads/clinical\\_management\\_of\\_drug\\_dependence\\_in\\_the\\_adult\\_prison\\_setting.pdf](http://www.nta.nhs.uk/uploads/clinical_management_of_drug_dependence_in_the_adult_prison_setting.pdf)

The problems are two-fold even when administering methadone to a tolerant patient. Firstly, it is self-evident that drowsiness can't be checked for at night, especially in prison. Secondly, methadone has both slow absorption and slow elimination and so even giving it in the morning does not preclude toxicity during the ensuing 24 hours. This is why it is important to look at the circumstances of each death as well as the post-mortem blood methadone concentrations.

'Found dead or unrousable in cell in the morning' is a recurring theme in this survey (13 out of 17 methadone-related deaths). In two out of the 4 methadone-related deaths that did not occur overnight, the patient was discovered between 12:10–12:20 suggesting a temporal relationship with methadone administration. One patient was found dead 2.5 hours after his last dose of methadone, and the final patient was found dead some 7.5 hours after his last methadone dose.

In 5 of the 17 methadone-related deaths in this survey the blood methadone concentration was  $> 0.5$  mg/L at post-mortem, further strengthening the argument that these deaths were methadone-related.

With this information in mind it would appear that prisoners may well be an especially vulnerable population as regards the toxicity of methadone as they are locked down at night either on their own, or with very few people to look out for them. The situation with most addicts in the community is that they lead such chaotic lifestyles that there is little if any diurnal variation in the pattern of their lives and so no 'night time', which would be expected to lead to a random distribution of methadone-related deaths throughout the day.

As regards future actions, more education as to warning signs of likely methadone toxicity (daytime or excessive drowsiness, snoring, nausea/vomiting, pneumonia, liver disease) could help to minimise the risk of unexpected death in prison. The use of buprenorphine, a much less toxic drug, instead of methadone could also help here. Whatever action is decided upon, drug abuse treatment/maintenance regimes in prison cannot be considered in isolation and must take into account the likely consequences when prisoners are released.

## **6. Conclusion**

This study was initiated because the number of 'unclassified' deaths on the NOMS database was noticed to have been increasing. Clearly residence on this file is a temporary occurrence pending further investigation, and as such selection of the cases for study was somewhat arbitrary. Nevertheless, the results do emphasise (i) the high proportion of methadone-related deaths in the cases studied, and (ii) the fact that so many of these methadone-related deaths occurred at night.

More education as to warning signs of likely methadone toxicity (daytime or excessive drowsiness, snoring, nausea/vomiting, signs of impending bronchopneumonia and/or liver disease) could help to minimise the risk of unexpected death in prisoners given methadone.

## **6. References**

Corkery JM, Schifano F, Ghodse AH, Oyefeso A. The effects of methadone and its role in fatalities. *Hum Psychopharmacol* 2004; 19: 565-76.

Drummer OH, Opeskin K, Syrjanen M, Cordner SM. Methadone toxicity causing death in ten subjects starting on a methadone maintenance program. *Am J Forensic Med Pathol* 1992; 13: 346-50.

Wolff K. Characterization of methadone overdose: clinical considerations and the scientific evidence. *Ther Drug Monit* 2002; 24: 457-70.

## Annex D: Analysis of Data:

Institute for Fiscal Studies, Professor Imran Rasul and Jonathan Shaw.

### Analysing the characteristics of unclassified deaths in custody

This document describes individuals whose death in custody was originally marked as unclassified or “awaiting further information” (including those who are still classified in either of these ways). We compare these deaths with deaths where the original classification was either natural causes or self-inflicted. As the majority of unclassified deaths have occurred in the recent past, we concentrate on deaths since 2000. In accordance with guidance from NOMS, we restrict attention to deaths that have occurred either in prison, or during release on temporary licence (ROTL) on medical grounds. All results are based on a March 2012 extract of the deaths in custody database. Note that since we only have information about individuals who have died, none of our comparisons relate to the whole prison population or to individuals in custody who have not died.

Table 1 compares the characteristics of individuals that have died in prison or on ROTL medical who died since 2000 and whose death was originally recorded as being:

- Natural causes (Column 1)
- Self-inflicted causes (Column 2)
- Unclassified (Column 3).

**Table 1: Individual Characteristics by Original Cause of Death Classification**  
**Deaths in Custody Since 2000**  
**Means, standard deviations in parentheses, p-values in square brackets**

	(1)	(2)	(3)	(4)	(5)
	Natural Causes	Self-Inflicted	Originally Unclassified Deaths	Difference Between Natural Causes and Unclassified Deaths [p-value]	Difference Between Self-inflicted and Unclassified Deaths [p-value]
Number (%) of deaths	1,090 (52.2)	918 (44.0)	80 (3.8)		
Age [years]	55.7 (14.7)	33.5 ( 11.1)	42.9 (13.6)	12.8 [0.000]	-9.42 [0.000]
Gender [female=1]	0.027 (0.161)	0.077 (0.267)	0.125 (0.333)	-0.098 [0.000]	-0.048 [0.135]
Time in Custody [years]	5.92 (9.02)	1.48 (3.45)	2.15 (3.69)	3.78 [0.000]	-0.662 [0.102]
White	0.895 (0.306)	0.864 (0.343)	0.836 (0.371)	0.058 [0.108]	0.026 [0.513]
UK National	0.918 (0.274)	0.887 (0.317)	0.913 (0.284)	0.006 [0.854]	-0.026 [0.482]

**Notes:** The data are from the Deaths in Custody Database, received on March 16th 2012. In the table we restrict attention to: (i) deaths since 2000; (ii) deaths that have occurred either in prison or on release on temporary licence (ROTL) medical; (iii) where the cause of cause is natural causes, self-inflicted or the cause of death was originally unclassified. Columns 4 and 5 report differences in means, and in square brackets we report the p-value on a two-sided test of equality of means, assuming equal variances in the groups being compared.

Of a total of 2,088 deaths in custody since 2000 (and meeting the criteria described above and with non-missing information), 80 were originally unclassified, amounting to 3.8% of the total. Despite the small number of unclassified deaths, some interesting results emerge from a comparison with the other two categories.

The first three columns of Table 1 show the average (mean) characteristics of individuals in each of the three categories. Column 4 then shows the difference in each characteristic between those that died from natural causes and those whose death was originally unclassified. In square brackets we show what is known as the p-value of the test of equality of the characteristics. Any number smaller than .10 suggests there is a statistically significant difference between the groups that is unlikely to be due to chance.

We see that, relative to those that die from natural causes (and considering one characteristic at a time): those whose deaths are unclassified are significantly younger (aged 43 rather than 56), more likely to be female (13% versus 3%), have spent less time in custody, and are less likely to be white (though the last of these borderline statistically significant). There are no differences in terms of UK nationality. These conclusions are unchanged if we do not impose the restriction that the variances of the two samples being compared are the same.

Column 5 shows the difference in each characteristic between those that died from self-inflicted causes and those whose deaths are unclassified. We see that, relative to those that die from self-inflicted causes (and considering one characteristic at a time): those whose deaths are originally unclassified are significantly older (aged 43 rather than 34). There are no statistically significant differences in terms of gender, race and nationality (time in custody differences between these two are borderline significant). These conclusions are unchanged if we do not impose the restriction that the variances of the two samples being compared are the same.

Thus in broad terms, those whose deaths are originally unclassified are somewhat more similar to those that die from self-inflicted causes, rather than those that die from natural causes.

Table 2 repeats the analysis but only for deaths in custody since 2010: 56 of the unclassified deaths have occurred since 2010. Indeed, Table 2 shows that since 2010, 12.7% of deaths in custody have been unclassified.<sup>4</sup> Most of the same patterns come out over this sample of deaths as in Table 1. In particular, those whose deaths are originally unclassified are somewhat more similar to those that die from self-inflicted causes, rather than those that die from natural causes.

**Table 2: Individual Characteristics by Original Cause of Death Classification**  
**Deaths in Custody Since 2010**  
**Means, standard deviations in parentheses, p-values in square brackets**

	(1)	(2)	(3)	(4)	(5)
	Natural Causes	Self-Inflicted	Originally Unclassified Deaths	Difference Between Natural Causes and Unclassified Deaths [p-value]	Difference Between Self-inflicted and Unclassified Deaths [p-value]
Number (%) of deaths	252 (57.1)	133 (30.2)	56 (12.7)		
Age [years]	59.1 (14.3)	35.3 (12.0)	43.1 (13.1)	16.0 [0.000]	-7.7 [0.000]
Gender [female=1]	0.008 (0.089)	0.023 (0.149)	0.143 (0.353)	-0.135 [0.000]	-0.120 [0.001]

<sup>4</sup> It is not surprising that this percentage is higher than when considering deaths since 2000, because unclassified deaths tend to be reclassified over time, after inquests have taken place.

<b>Time in Custody [years]</b>	6.91 (9.74)	1.89 (3.95)	1.48 (2.18)	5.43 [0.000]	0.41 [0.466]
<b>White</b>	0.881 (0.324)	0.865 (0.343)	0.821 (0.386)	0.060 [0.232]	0.043 [0.447]
<b>UK National</b>	0.921 (0.271)	0.835 (0.373)	0.911 (0.288)	0.010 [0.807]	-0.076 [0.174]

**Notes:** The data are from the Deaths in Custody Database, received on March 16th 2012. In the table we restrict attention to: (i) deaths since 2010; (ii) deaths that have occurred either in prison or on release on temporary licence (ROTL) medical; (iii) where the cause of cause is natural causes, self-inflicted or the cause of death was originally unclassified. Columns 4 and 5 report differences in means, and in square brackets we report the p-value on a two-sided test of equality of means, assuming equal variances in the groups being compared.

## **Annex E: Expert Advisors consulted and how**

- Meeting with Nigel Newcomen and staff, Prisons and Probation Ombudsman
- Telephone conference with official from Prison Inspectorate
- Meeting with Inquest
- Meeting with Prison Reform Trust
- Meeting with Andre Rebello, Honorary Secretary Coroners' Society
- Telephone conversation with Nigel Meadows, Coroner, Manchester.
- Meetings with Richard Bradshaw, Director of Offender Health, Department of Health
- Meeting with Dave Marteau, Clinical Substance Misuse Lead, Offender Health, Department of Health
- Meeting with Dr. Mary Piper, Senior Public Health Consultant, Department of Health.
- Meetings with Jan Palmer, Clinical Substance Misuse Lead, Offender Health, Department of Health
- Meetings with the Chair of the Secure Environment Pharmacists Group
- Meeting with Lead Commissioner, NHS Lambeth
- Royal College of General Practitioners Secure Environments Group
- Secure Environment Pharmacists' Group
- London prisons healthcare commissioners group
- Discussion with Professor John Strang, Professor of Addictions, Director of the National Addiction Centre, Institute of Psychiatry
- Meetings with senior security staff within the Prison Service (Richard Pickering and officials)
- Meeting with Dr. Nat Wright, GP, HMP Leeds
- Meeting with Dr. Dax Tennant, GP, HMP Brixton
- Meetings with NOMS Custodial Health & Wellbeing Co-Commissioner

**Annex F: Prisons visited**

I made fifteen prison visits to a range of prisons in the public and private sectors.

Two were high security prisons and the rest were local and training prisons including some from the women's estate.