1) The export of lethal injection drugs from Europe

In the summer of 2010, the sole US manufacturer of execution drug sodium thiopental, Hospira, ceased production of the substance due to a shortage of raw materials, forcing Departments of Corrections to source their execution drugs overseas. Reprieve discovered that a company in Britain was supplying these chemicals and set out to stop British complicity in executions.

The approved execution protocol in the United States consists of a cocktail of three drugs: sodium thiopental (also known as thiopental sodium and pentothal) supposedly anaesthetizes the victim, before pancuronium bromide paralyses the muscles and potassium chloride stops the heart.

On 25th October 2010, Jeffrey Landrigan was executed in Arizona using sodium thiopental imported from Britain. The lawyers of Edmund Zagorski, a man who has spent 28 years of his life on death row in Tennessee, subsequently contacted Reprieve with the information that the Tennessee Department of Corrections was seeking to purchase their own supply of sodium thiopental from the same company. Reprieve and lawyers Leigh Day & Co contacted members of the government, asking them to put in place emergency measures to prevent the export of the chemical, and thus stay Edmund's execution. Business Secretary Vince Cable and Jeremy Browne MP on behalf of the FCO declined to take such a step. We therefore filed for judicial review of the government’s failure to prevent British complicity in executions. Counsel for the government initially argued that it was not worth imposing an export ban as executing states would source their sodium thiopental from elsewhere, but on 29th November Vince Cable finally agreed to put in place a system of controls making it illegal to export
sodium thiopental from the UK to the US.

Shortly afterwards, Reprieve discovered that the British company responsible was Dream Pharma, a tiny pharmaceutical wholesalers operating out of the back of a driving academy in Acton, and that it had already exported a substantial quantity of sodium thiopental – as well as the other two lethal injection chemicals – before the ban came into force. We asked Matt Alavi, the Managing Director of Dream Pharma, for his help in mitigating the damage done by his quest for profit; he had been selling sodium thiopental for between six and twelve times its recommended price, knowing that it was to be used in lethal injections. Mr Alavi refused, and the drugs he supplied have already been used to kill three people: Brandon Rhode and Emanuel Hammond in Georgia, as well as Jeffrey Landrigan.

Disturbingly, it seems that Dream Pharma’s sodium thiopental may not have been properly effective as an anaesthetic, and that Brandon and Emanuel may therefore have been in agony during their executions. Dr Mark Heath, a renowned lethal injection expert, filed a sworn declaration stating that the fact that Brandon’s eyes remained open throughout his execution was highly unusual and strongly suggested that he was not properly anaesthetized and therefore conscious throughout the process. He also wrote that:

“...if the thiopental was inadequately effective Mr Rhode’s death would certainly have been agonizing; there is no dispute that the asphyxiation caused by pancuronium and the caustic burning sensation caused by potassium would be agonizing in the absence of adequate anesthesia.”

Reprieve has been asking Business Secretary Vince Cable to put in place strict measures regulating the export of pancuronium bromide and potassium chloride from the UK. We are now asking Parliament for legislative change, detailed at the end of this briefing. We are also asking the governments of Austria and Germany, where sodium thiopental and its active ingredients are still manufactured, to follow Britain in imposing a full export ban on the drug.

Hospira, which intended to begin manufacturing sodium thiopental destined for American penitentiaries in an Italian factory, announced in January that it would be ceasing all production of the drug. This was the result of government pressure which followed a successful press conference in Rome in early December.

2) The execution of Brandon Rhode

Brandon Rhode was just 18 years old when he participated in the crime for which he was ultimately executed: the shooting of three people during a burglary. Brandon (pictured with his mother Patches (centre) and his brother Joshua(right)) was mentally handicapped, and was functioning at a considerably younger level than his age in terms of his ability to control impulses and appreciate consequences. He had been drinking alcohol since the age of 11, and by the age of 13 was abusing alcohol and drugs regularly – his biological father, with whom Brandon lived after dropping out of school
at the age of 15, was also a drug addict and an alcoholic. Brandon’s limited mental capacity was presented as mitigating evidence during his appeals, but the courts were unmoved.

During his long years on death row, Brandon became very close friends with several other inmates. Together with his best friend, who shared his passion for nature and animals, Brandon once smuggled some baby birds that had fallen from their nest onto the ground in the prison’s exercise yard into his cell. The two men secretly nursed the birds back to health, feeding them on scraps carefully saved from their own meals, and taught them to fly. When the creatures were strong enough to survive on their own, Brandon and his friend released them.

Brandon was executed in Georgia shortly after 10pm on Tuesday 28th September 2010. The execution had originally been scheduled for 7pm the previous Tuesday, but just hours before it was due to be carried out, Brandon attempted suicide by slashing his neck and arms, terrified of the painful death by lethal injection that awaited him. Although he was supposedly on suicide watch, a prison guard had provided him with a disposable razor and neglected to remove it from his cell.

His medical records show that Brandon’s self-inflicted wounds were so severe that he lost at least half the blood in his body and suffered haemorrhagic shock, but medical personnel managed to ‘save’ his life by repeatedly shocking his heart. He had caused such damage to the blood vessels in his arms that an IV had to be inserted into his neck. When Brandon was returned to prison, the IV port was left in place so that the lethal injection could be administered in the same site.

After his suicide attempt, Brandon was tightly restrained in a chair for seven days, bound at his chest, arms and legs and shackled. He was forced to spend almost 24 hours a day sitting upright in bright light and constant noise, permitted just ten minutes each day to walk around. When he needed to eat, one of his hands was released for five minutes. In an affidavit submitted to the Supreme Court, Brandon’s attorney Brian Kammer stated that when he met with his client at this time, “Brandon indicated that he was in severe pain and discomfort amounting to torture”. He was cycling in and out of a dissociative state, and although he may well have suffered further brain damage as a result of his substantial blood loss, no neuropsychological testing was performed.

Despite the fact that, under the circumstances described, Brandon’s execution clearly constituted cruel and unusual punishment, he was not granted a second stay of execution in order for his mental competency to be properly assessed. Even more disturbingly, a witness to the execution testified that Brandon’s eyes remained open throughout the process, a clear sign that the anaesthetic sodium thiopental (the first of the three drugs administered in the lethal injection protocol) was not effective. Dr Mark Heath, a renowned lethal injection expert, has stated that “if the thiopental was inadequately effective Mr Rhode’s death would certainly have been agonizing; there is no dispute that the asphyxiation caused by pancuronium and the caustic burning sensation caused by potassium would be agonizing in the absence of adequate anesthesia”. For a crime he had committed as a teenager, and after having spent a third of his life on death row, it seems Brandon Rhode’s worst fears about dying in pain were realized.

3) The execution of Emanuel Hammond
Emanuel Hammond was sentenced to death in 1988 for the murder of Julie Love; he spent 23 years on death row.

Emanuel was executed in Georgia at 11.39pm EST on 25th January, using drugs sold by the Acton-based pharmaceutical company Dream Pharma. The execution was delayed for four and a half hours by the US Supreme Court to consider whether to order it permanently halted, in light of evidence concerning Georgia's hitherto-undisclosed execution of Brandon Rhode on September 27, 2010. However, ultimately the court did not grant a stay in order to allow for investigation of whether or not the sodium thiopental obtained by the Georgia DoC from Britain was ineffective.

Various articles and reports on his execution suggest that Emanuel was not rendered unconscious by the anaesthetic (there is talk of him mouthing words after the sodium thiopental was administered), and that, since an adequate dose of the anaesthetic had been given to him, it seems likely that the it did not work properly (see: http://www.gwinnettdailypost.com/home/headlines/114877209.html).

4) Timeline of events

22nd September 2010: Prison authorities in Arizona and California begin exchanging emails on the subject of the latter procuring execution drugs from the former.

28th September: Brandon Rhode is executed. Dream Pharma, a company based in Acton, West London, invoice authorities in Arizona for supplies of all three lethal injection drugs.

30th September: Authorities in Tennessee correspond with an as-yet-unknown supplier about purchasing sodium thiopental.

26th October: The Ninth Circuit US Court of Appeals upholds an Arizona district court order granting a temporary stay of execution for Jeffrey Landrigan. An application to the Supreme Court to vacate the order is subsequently granted, and Landrigan is executed at 10.26pm local time.

28th October: Reprieve and Leigh Day write to Business Secretary Vince Cable asking him to place an export ban on sodium thiopental by 5pm the next day, in an attempt to prevent Ed Zagorski being executed by the state of Tennessee using drugs from Britain.

1st November: Ian Bond, a political counsellor at the British Embassy in Washington, writes to the Bureau of European and Eurasian Affairs at the US Department of State expressing deep concern about the use of British sodium thiopental in executions. In London, Business Secretary Vince Cable replies to Reprieve’s letter of 28th October and refuses to impose the requested controls on sodium thiopental. Reprieve and Leigh Day respond with a letter before action, notifying him of their intention to judicially review his failure to ban the export of the drug.

2nd November: An application for judicial review is submitted on behalf of Ed Zagorski, and granted the same day.

4th November: Reprieve writes to the Austrian Finance Minister, the Austrian Justice
Minister and the Austrian Minister for European Affairs asking them to ban the export of sodium thiopental from Austria and take other steps to ensure European drugs are not used in executions in the US.

5th November: Reprieve writes to the Division Head of Sandoz International, the Austrian pharmaceutical company thought to have manufactured the sodium thiopental that killed Jeffrey Landrigan. Leigh Day writes to the UK government, warning that the Tennessee authorities are now in possession of sufficient sodium thiopental to kill Ed Zagorski, and giving notification of their intention to add a second claimant: Ralph Baze.

8th November: Clive Stafford Smith submits his witness statement, in which he argues that the source of the drugs used in lethal injections is crucial to the constitutionality or otherwise of executions. Paul Bottei, Assistant Federal Public Defender of Tennessee and Counsel for Ed Zagorski, submits his second witness statement, in which he describes the response of the Tennessee authorities to his office's public records request concerning the state's supplies of sodium thiopental.

9th November: Christina Ackermann, General Counsel of Sandoz, replies to Reprieve's letter to say she is assessing the situation and will respond shortly. Steven Shafer, Professor of Anaesthesiology at Columbia University, submits his witness statement. Maya Foa submits her witness statement, containing background information on the use, manufacture and distribution of sodium thiopental. Leigh Day submits an application to join Ralph Baze as co-claimant.

12th November: Archimedes Pharma submit a witness statement in which it states that the company does not oppose the claimants’ application for judicial review.

15th November: Paul Bottei submits his third witness statement, rebutting claims by the Secretary of State that export controls on sodium thiopental would be unduly onerous for exporters or insufficiently capable of enforcement.

16th November: Counsel for Ed Zagorski and Ralph Baze submit skeleton arguments, challenging the Business Secretary's refusal to impose an export ban on sodium thiopental.

17th November: Exhibit MF3, a compilation of information about the availability and cost of sodium thiopental, is submitted.

18th November: Dr Ravpreet Singh Gill, Assistant Professor of Anaesthesiology at the University of Tennessee Health Science Center, submits his witness statement, in which he explains that sodium thiopental is used in a medical context primarily for caesarian sections, but is not the only drug that can serve this purpose. Adam Rossiter of the Treasury Solicitor's Department submits his witness statement detailing how and why he made contact with Dr Gill.

19th November: Tom Smith submits his third witness statement, clarifying the current position of the FDA with regards to sodium thiopental. Counsel for Vince Cable submit their skeleton argument, arguing that an export ban on sodium thiopental would not prevent the US from acquiring the drug from other countries.

22nd November: Exhibit MC1 submitted, including information about uses of sodium
thiopental. Exhibit TS3 submitted, including FDA guidance and emails exchanged between Tom Smith at the Department for Business Innovation and Skills and Murray Lumpkin at the FDA.

2nd December: Paul Bottei writes to Clive Stafford Smith reporting that his office has examined the execution drugs procured by Tennessee. Reprieve forwards this correspondence to Ambassador Tichy at the Austrian government, along with a letter reiterating the need for an export ban on sodium thiopental.

7th December: Reprieve writes to Business Secretary Vince Cable warning that authorities in California have ordered enough sodium thiopental to execute 85 people from Reading-based Archimedes Pharma, and that the shipment is currently with the Food and Drug Administration.

16th December: Reprieve writes to Business Secretary Vince Cable to inform him that, in addition to sodium thiopental, the other two drugs used in the lethal injection cocktail (potassium chloride and pancuronium bromide) have also been imported from Britain by executing states.

24th December: Law firm Weil, Gotshal & Manges, instructed by Reprieve, writes to Jose Manuel Barroso, President of the EU, urging him to impose export controls on execution drugs.

29th December: Reprieve writes to Business Secretary Vince Cable informing him that, in addition to sodium thiopental, the other two drugs used in the lethal injection cocktail (potassium chloride and pancuronium bromide) have also been imported from Britain by executing states.

4th January 2011: The FDA releases a statement saying that it does not review or approve substances used for execution purposes.

25th January 2011: Emanuel Hammond is executed.

5) The profit on sodium thiopental

The International Drug Price Indicator Guide 2009 lists the supplier prices for thiopental sodium (sodium thiopental) in powder form for reconstitution, which is the form generally purchased by Departments of Corrections, as varying from a low price of $0.73 per 500 mg vial, to a high price is $1.39. The median price is $0.97.[With the exports by Dream Pharma, the sales were in pounds sterling (£). These figures have been translated into dollars at an exchange rate of $1.5804 per £1.00]

On 15th July 2010, Dream Pharma sold the Georgia Department of Corrections (GDoC) 50 vials of Sodium Thiopental for $5.81 per vial, a mark up to 599% of the median price or 418% of the maximum price (Exhibit 1)

On 4th August 2010, the GDoC also purchased 25 additional vials, again at six times the median price. These drugs were used in the torturous execution of Brandon Rhode on September 27th, 2010, when the sodium thiopental was apparently not effective, and in
the execution of Emanuel Hamm on January 25th, 2011 (Exhibit 2)

On 28th September 2010, the Arizona Department of Corrections bought 150 vials of Sodium Thiopental from Dream Pharma, at $12 per vial, a mark up to 1,237% of the median price or 863% of the maximum. This was used for the execution of Jeffrey Landrigan on October 26th, 2010 (Exhibit 3)

On September 30th, 2010, a sales agreement between the Tennessee authorities and an unknown supplier reflects a sale price of $225 per vial, a mark-up to 23,196% of the median price or 16,187% of the maximum.

On October 25th, 2010, a company (believed but not yet proven to be Dream Pharma) sold the Tennessee Department of Corrections 50 vials of pentathol (sodium thiopental) at $31.02 per vial, a mark-up to 3,198% the median price or 2,232% of the maximum.

In November 2010, a company (believed but not yet proven to be Dream Pharma) sold the California Department of Corrections 1,042 vials of sodium thiopental for $35 per vial, a mark-up to 3,608% of the median price or 2,518% of the maximum.

Quantities of sodium thiopental: It seems on average six grams of thiopental are needed per execution (three for the execution itself and another three for backup). The protocol varies state by state but six grams (i.e. 12 500mg vials) is a roughly appropriate figure. Georgia bought 75 vials and Arizona bought 150 vials, both from Dream Pharma (this is proven). Georgia now probably has sufficient British-supplied thiopental for four more executions (after Brandon Rhode and Emanuel Hammond) and Arizona probably enough for eleven more executions (after Jeffrey Landrigan). California purchased 1,042 vials – enough for about 85 executions – but it is not (yet) proved that the transaction was with Dream Pharma. Tennessee bought 50 vials of the drug in October – enough for four executions – but it is not yet proven that this thiopental came from the UK.

6) Proposed changes to UK legislation

The aim is to impose criminal sanctions on pharmaceutical companies and wholesalers who sell drugs to the other countries knowing that these drugs would be used to execute prisoners. Following the shocking disclosure that Dream Pharma expedited the export of the drug to ensure the executions took place, Reprieve advised by, Weil, Gotshal and Manges are calling on Parliament to impose criminal sanctions on the knowing export of drugs for executions.

Brenda Coleman of Weil, Gotshal and Manges and Ben Cooper of Doughty Street will meet with Home Office Legislation Department on Monday to explore raising this at the next meeting of the Advisory Council on the Misuse of Drugs.

Proposed legislation:

A person is guilty of an offence if he sells, deals in, exports or supplies any substance knowing or believing that it is to be used in [or will facilitate] the execution of any person in any jurisdiction. It shall be no
defense to a prosecution under this provision that the execution may be
deemed legal under the law of the executing state.

Offences under this Act shall be liable to imprisonment for a term not
exceeding 2 years or a fine, or both.¹

Q. Why is this new legislation necessary?
The use of British drugs in U.S. executions highlight that the current regulatory
structure on pharmaceutical companies is not sufficient. Imposing criminal
sanctions on companies who supplies drugs “knowing or believing” that it will
be used in executions will act as a severe deterrent on those who wish to play
some role in this abhorrent practice of executions.

Q. How do you think Pharmaceutical companies will respond to this
legislation?
The proposed legislation is narrowly tailored to punish only those who know
that they are selling drugs for executions. For example, we have evidence
through emails correspondence that Dream Pharma were happy to help
Georgia Department of Corrections execute prisoners. Diligent, careful and
caring pharmaceutical companies will not face criminal liability.

Q. When will this law come into force?
We have already met with the Home Office Legislation Department and hope
the new law will be included in the Government’s forthcoming criminal reform
legislation.

Q. How does the proposed legislation affect companies who have already
exported drugs for executions?
The new law will not be retrospective.

Q: Would the passing on the proposed legislation put the UK in breach of any of its
obligations under EU legislation?
While the proposed legislation could conceivably affect trade between member states,
and may therefore fall within the ambit of EU legislation, both the EU and the UK are
formally committed to the abolition of the death penalty by international treaty. Given
that the proposed legislation seeks to only restrict trade in goods where the trading party
is fully aware of its intended use, we therefore believe that the proposed legislation
should not conflict with any of the UK’s obligations and the passing of the proposed
legislation would be legal on grounds of public policy.

ABOUT REPRIEVE:

Reprieve, a legal action charity, uses the law to enforce the human rights of prisoners,
from death row to Guantánamo Bay. Reprieve investigates, litigates and educates,
working on the frontline, to provide legal support to prisoners unable to pay for it
themselves. Reprieve promotes the rule of law around the world, securing each person’s

¹ The proposed punishment is analogous to the penalty imposed for breaches of s.18(2) Misuse of Drugs
Act 1971, the importing or exporting controlled drugs in breach of terms of a license.
right to a fair trial and saving lives. Clive Stafford Smith is the founder of Reprieve and has spent 25 years working on behalf of people facing the death penalty in the USA.

Reprieve’s current casework involves representing 33 prisoners in the US prison at Guantanamo Bay, working on behalf of prisoners facing the death penalty, and conducting ongoing investigations into the rendition and the secret detention of ‘ghost prisoners’ in the so-called ‘war on terror.’

Reprieve
PO Box 52742
London EC4P 4WS
Tel: 020 7353 4640
Fax: 020 7353 4641
Email: info@reprieve.org.uk
Website: www.reprieve.org.uk

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