

**BIRMINGHAM CITY COUNCIL**

**REPORT OF THE ACTING DIRECTOR OF REGULATION AND ENFORCEMENT  
TO THE LICENSING AND PUBLIC PROTECTION COMMITTEE**

**16 MARCH 2016**  
**ALL WARDS**

**COMPUTED TOMOGRAPHY POST MORTEMS**

1. **Summary**

- 1.1 A report to advise the Committee of the introduction of Computed Tomography Post Mortems (CTPM) provision by the Senior Coroner for Birmingham and Solihull and the potential for the service and the bereaved.

2. **Recommendation**

- 2.1 That the report be noted.

Contact Officer: Alison Harwood, Acting Director of Regulation and Enforcement  
Telephone: 0121 303 0201  
E-mail: [alison.harwood@birmingham.gov.uk](mailto:alison.harwood@birmingham.gov.uk)

Originating Officer: Adrian Parkes, Operations Manager Coroners and Mortuary

### 3. Background

- 3.1 The Coroners and Justice Act 2009 introduced the provision for the use of minimally invasive post mortems as an alternative to the traditional invasive post mortem in relation to autopsies ordered by Coroners.
- 3.2 Chief Coroner shortly after his appointment issued guidance on the use of CTPM. In 2015 the High Court in the case of *Charles Rotsztein v HM Senior Coroner for Inner London* the court gave guidance as to the approach coroners should take when considering whether to direct invasive or non-invasive post-mortem procedures in cases where a deceased's family had expressed religious objections to the use of an invasive autopsy. This guidance provides coroners with a series of tests to apply in relation to dealing with requests for CTPM – in cases of religious objection to an invasive post mortem:
- There has to be an established religious tenet that an invasive post mortem was to be avoided.
  - There had to be a realistic possibility that non-invasive procedures would establish the cause of death and would permit the coroner to fulfil their duty.
  - The whole post-mortem examination had to be capable of being undertaken without undue delay.
  - The performance of non-invasive or minimally-invasive procedures must not impair the effectiveness of an invasive autopsy if one was ultimately required.
  - Non-invasive procedures could be adopted without imposing an additional cost burden on the Coroner.
- 3.3 CTPM is the means by which a digital autopsy is undertaken. This is a relatively new process and has been subject to research that indicates that it is suitable in certain cases to replace an invasive post mortem and provide the coroner with the cause of death sufficient for them to fulfil their legal duty to establish the cause of death.
- 3.4 There are limitations to the effectiveness of CTPM and research has confirmed that it is not suitable for cases of sepsis or following most hospital procedures. Additionally the use of angiography (the injection of dye into the arteries of the deceased) is a prerequisite to its use in establishing the most common causes of death including ischaemic heart disease. With angiography in place research indicates that the use of CTPM could identify the cause of death to the satisfaction of a coroner in around 70% of deaths. Without angiography this figure falls very significantly and the Birmingham and Solihull Coroner believes it is suitable only for traumatic deaths.
- 3.5 The CTPM facility provided by Igene at Sandwell is not able to undertake angiography. As a result in the view of the Senior Coroner it can only be used in cases of traumatic death.

#### 4. The Current Position in the Birmingham and Solihull Coroner's Area

4.1 In 2014, the Senior Coroner was approached by Igene, a Malaysian company, with regard to the locating of a CTPM facility in Birmingham. Igene were invited to the Central Mortuary to investigate the potential to install the equipment on site. Igene considered this as an option but decided that the facilities were too small to accommodate their equipment. Subsequently Igene were offered other facilities within the city councils property portfolio which appeared to meet Igene's requirements. The company decided however, to build their facility adjacent to Sandwell crematorium and not in Birmingham.

4.2 In June 2015 the Senior Coroner agreed to make CTPM available for the undertaking of post mortems under her direction. This decision was communicated through the Faith Advocacy Group (which includes the bereavement services in the hospitals), and the Funeral Director's consultation meetings held bi-annually by Bereavement Services and information posted on the Coroner's Service website.

4.3 In line with the chief coroners guidance issued on 4 September 2013 the cost of the CTPM was to be met by the family who would also be required to arrange and pay for the transport of the deceased to and from the facility. His guidance is:

'A number of limitations, not least cost, preclude coroners from offering post mortem imaging as a possible alternative to the conventional autopsy in all cases, and certainly not as a free service. But the service may be requested of them and they will have to decide how to respond. Coroners will have to discuss locally how such imaging, if available, can be funded (as well as transport services). If families have to pay, payment should never be made directly through the Coroner Service'

4.4 The procedure involved for families choosing to have a CTPM is summarised:

- The Senior Coroner has to agree that the death is a suitable for a CTPM.
- The deceased has to be taken into the central mortuary in Birmingham where a pathologist conducts the required external examination of the deceased.
- The family arrange for the deceased to be taken from the central mortuary to the facility in Sandwell where the CTPM is carried out and the body then returned to the Central Mortuary.
- Igene radiologists examine the results of the CTPM and produce a report that is sent to the pathologist dealing with case. The Pathologist reviews the information and produces a further report to inform the Coroner's decision in relation to the cause of death.
- If the cause of death cannot be established to the satisfaction of the coroner an invasive post mortem will be undertaken. Where a CTPM is undertaken there may still be the need for toxicology and/or histological

tests to be undertaken that will require some invasion of the deceased to obtain the required samples for testing.

This process will increase the timescales for families compared to the traditional post mortem because of the need to transport the deceased and await the report from Igene before the pathologist can report to the Coroner.

- 4.5 The cost of a CTPM at Igene is £500 (+ vat) which is paid for by the family who are also required to arrange and pay for the transport to and from the facility. The City Council still has to pay the pathologist the statutory fee the same as for a traditional post mortem. If Igene are unable to provide a cause of death acceptable to the Coroner then their fee to the family is refunded. This policy is currently being reviewed.
- 4.6 A CTPM facility with angiography is available at a hospital in Oxford. This facility is only available out of normal office hours. This facility has been used by families on two occasions at their request. The cost is similar at around £400 (+ vat) but the transportation costs are increased because of the distance travelled.

## 5 Demand for CTPM in Birmingham

Since 1 June 2015 there have been three instances where CTPM has been conducted, one at Igene's facility in Sandwell and two at Oxford. This is reflective of the level of requests that have been received from families to have CTPM, to date the number of requests is in single figures.

## 6 Potential Use of CTPM

- 6.1 In 2015 over 1,700 post mortems were ordered by the Coroner for Birmingham and Solihull. Approximately 70% of these cases would have been suitable for CTPM if angiography were available. Where angiography was not available then approximately 10% would have been suitable for CTPM.
- 6.2 Oxford provides angiography but can only accommodate a limited number of CTPM's as it is located in a hospital and only operates this service outside of normal office hours .
- 6.3 The Senior Coroner has raised the potential to have a CTPM facility with angiography made available at Birmingham hospitals but to date there has not been any interest shown in developing such a facility
- 6.4 If increasing numbers of CTPMs were to be conducted and families pay for them the savings to the council would be minimal as the staff in the central mortuary are required to maintain the public mortuary facility and the statutory fee would still be payable to the pathologist in each case .

7     Implications for Resources

- 7.1    There is little impact in relation to resources as the cost of the service is met by the family.

8     Implications for Policy Priorities

- 8.1    The provision of post mortems by the Coroner contributes to the policy priority of a fair city especially in relation to keeping people safe and ensuring older people are cared for with dignity.

9     Implications for Equality and Diversity

- 9.1    The provision of the CTPM service is available for all bereaved families.

**ACTING DIRECTOR OF REGULATION AND ENFORCEMENT**

Background Papers: Nil