行政院及所屬各機關出國報告

(出國類别:進修)

法務部法醫研究所 九十一年度薦送病理專科醫師赴美進修報告書

服務機關:法務部法醫研究所

出 國人 職 稱:組長

姓 名:蕭開平

出國地點:美國佛羅里達州邁阿密市

出國時間:民國九十一年十一月一日至

民國九十二年十月三十一日

報告日期:民國九十三年四月十五日

Jo/c09104909

摘 要

二〇〇二年十一月一日至二〇〇三年十月三十一日期間接受法務部法醫研究 所薦送病理專科醫師出國,赴美國佛羅里達州邁阿密市法醫部進修,為期一年。 此行目的主要為接受法醫病理住院醫師訓練一年,訓練內容則包括:法醫病理解 剖,法醫毒物學,法醫攝影技術,法醫現場勘查技術,法醫刑事鑑識科學技術, 法醫辦公室的行政運作,美國法醫制度的特性,世界法醫現代鑑識新知及流行趨 **勢。其他尚包括參與二〇〇三年二月十七日至二十二日在芝加哥舉行的美國法醫** 刑事科學年會 (Annual meeting of American Association of Forensic Science), 二〇 〇三年九月十九日至二十四日在加州聖荷西 (San Jose, CA) 舉行的國際法醫師 年會 (National Association of Medical Examiner) 並發表論文兩篇,參與二〇〇三 年六月八日至十二日於喬治亞州亞特蘭大市舉行的美國驗屍官法醫師年會 (Annual Conference, the International Association of Coroner and medical Examiner),並參與常規行每月舉辦的佛羅里達,邁阿米郡法醫刑警兇殺案件聯合 會,每週的法醫案件研討會,四季的邁阿米郡法醫研習會,兇殺案現場勘查二實 踐,解剖一百一十件,單一重大兇殺案屍骨殘骸(桶屍案)偵查案,並給予法醫 特別演講八次,特別講述台灣法醫制度,台灣法醫特殊案件與法醫偵查特性,包 括大災難的處理原則、新航空難處理經驗、華航澎湖空難處理經驗、刀痕痕跡證 物鑑識、高處墜樓動力學研究、安非他命毒理學、沙林毒氣之處理、生物化學災 難防護等,頗受激賞與好評。

進修人在進修前即已參與台灣法醫制度的修法,制度的建立,實可謂已完成了法醫病理專科訓練,並已參與法醫實務檢驗達十五年以上,美國法醫泰斗 Joseph David 並正面告示我「要專注於美國法醫制度的運作尋求最佳適用於台灣的法醫制度」,此段話確成為進修一年所有的註解與尋求進修的最佳動力。

結論與建議:一、台灣法醫制度有獨具檢察官主導的死因偵查體制,可漸次 在建立法醫師在司法死亡案件的偵查權回歸法醫師的「死亡管理權」,惟檢察官在 兇殺及相關疑難案件的偵查主導確為法醫偵查制度不可或缺的動力,建立法醫師 與檢察官權責區分為未來立法方向。二、台灣區建立國家級 (Centralized) 法醫機構確為最符國情,人口分布,土地及交通範圍,在各地檢署法醫室的"離型"下,建立以法醫研究所為主導的法醫解剖相官偵查制度及法醫人事一條鞭的體制,確為全世界難得的國家級及高效能的法醫制度。三、建立台灣北、中、南、東法醫解剖中心隸屬法醫研究所的運作機制並可掌握國家級法醫毒物,血清分子生物學的,法醫病理鑑驗之水準及高效率監督、指導的死因偵查鑑驗機制。四、我國的法醫病理鑑驗之水準及高效率監督、指導的死因偵查鑑驗機制。四、我國的法醫鑑識水準有高於美國的趨勢,應漸次建立在國內法醫病理專科醫師訓練的機能,並能吸引國際人士前往本國接受法醫病理訓練。五、積極參與國際間法醫會議,宣揚我國法醫現代化的成就及績效。

日 次

壹、進修目的:	5
貳、進修過程:	5
一、法醫刑事研習(討)會	6
(一)美國法醫刑事科學學會一九九三年年會	6
(二)美國驗屍官法醫師學會一九九三年年會	9
(三)參與國際法醫師學會一九九三年年會	13
(四)美國中南區年度研習會(虐兒案件的偵查與現場重現研習)	13
(五)邁阿密郡法醫刑警兇殺案研習會	14
(六)邁阿密郡大災難處理演習	14
二、法醫刑事參訪	14
(一)康乃迪克州刑事鑑識中心參訪:州法醫師制度的實例	21
(二)美國匹茲堡法醫中心參訪:驗屍官法醫師制度的實例	24
(三)美國邁阿密郡法醫中心參訪:主任法醫師制度的實例	24
(四)美國各州法醫中心參訪	27
三、法醫病理專科訓練	29
(一)辦公室規劃與設置	29
(二)行政體制與經費運作	31
(三)相驗解剖鑑定制度的訓練及運作及優缺點比較	31
四、法醫刑事科學訓練	31

(一)刑事科學參訪	31
(二)相驗與現場勘查制度與訓練	32
(三)槍彈火炮實務射擊	32
(四)槍彈火炮實務檢測實驗	33
(五)單一重大兇殺案屍骨殘骸偵查實錄	33
冬、討論······	33
肆、結論與建議	35
附 錄	40

壹、進修目的:

二〇〇二年十一月一日至二〇〇三年十月三十一日期間接受法務部法醫研究所薦送病理專科醫師出國,赴美國佛羅里達州邁阿密市法醫部進修,為期一年。此行目的主要為接受法醫病理住院醫師訓練一年,訓練內容則包括:法醫病理解剖,法醫毒物學,法醫攝影技術,法醫現場勘查技術,法醫刑事鑑識科學技術,法醫辦公室的行政及專業運作,美國法醫制度的特性,世界法醫現代鑑識新知及流行趨勢。進修人在進修前即已參與台灣法醫制度的修法,完成法醫病理鑑定案件達二千件以上,及我國法醫制度的建立,其中包括國家級法務部法醫研究所的籌劃、成立,實可謂已完成了法醫病理專科訓練,並已參與法醫實務檢驗達十五年以上,美國法醫泰斗Joseph David 並正面告示我「要專注於美國法醫制度的運作尋求最佳適用於台灣的法醫制度」,此段話確成為進修一年所有的實習註解與尋求進修學習目標的最佳動力。

貳、進修過程:

二〇〇二年十一月一日至二〇〇三年十月三十一日期間接受法務部法醫研究所薦送病理專科醫師出國,赴美國佛羅里達州邁阿密市法醫部進修,為期一年。期間參與各項國際重大法醫學術研討會,包括二〇〇三年二月十七日至二十二日在芝加哥舉行的美國法醫刑事科學年會(Annual meeting of American Association of Forensic Science),二〇〇三年九月十九日至二十四日在加州聖荷西(San Jose,CA)舉行的國際法醫師年會(National Association of medical Examiner),並發表論文兩篇,及二〇〇三年六月八日至十二日於喬治亞州亞特蘭大市舉行的美國驗屍官法醫師年會(Annual Conference, the International Association of Coroner and medical Examiner),並參與常規行每月舉辦的佛羅里達,邁阿米郡法醫刑警兇殺案件聯合會,每週的法醫辦公室法醫案件研討會,四季的邁阿米郡法醫研習會,兇

般案現場勘查二十件,解剖一百一十件,單一重大兇殺案屍骨殘骸(桶屍案)偵查案,並給予法醫特別演講八次,特別講述台灣法醫制度,台灣法醫特殊案件與法醫偵查特性,包括大災難的處理原則、新航空難處理經驗、華航澎湖空難處理經驗、刀痕痕跡證物鑑識、高處墜樓動力學研究、安非他命毒理學、殺林毒氣之處理、生物化學災難防護等,頗受激賞與好評。

一、 法醫刑事研習(討)會:

(一) 美國法醫刑事科學學會一九九三年年會 (Annual meeting of American Association of Forensic Science)

九十二年二月十七日至九十二年二月二十二日参加第五十五屆美國刑事科學年會發表論文、瞭解國際會議運作及參訪認證實驗室。此次年會之歡迎會,當面經由我國旅美著名國際刑事鑑識專家李昌鈺博士介紹認識來自世界各地之鑑識專家與學者,並與其中二十餘位曾參加我國法務部調查局於民國八十三年舉辦之國際鑑識科學研討會,均熱誠招呼合影並希望能多保持聯絡。會後參加李昌鈺博士主講之講演"鑑識人員於調查國際衝突死亡案件中扮演之獨立關鍵角色"(The Role of Independent Forensic Scientists in the Investigation of Fatalities Associated With International Conflicts: Differentiation of "Massacre" From War Zone Death.及其他相關重要會議及研習活動。

二月十九日參加大會講演,講題為"鑑識專家支援大型災難復原之功能",演講者為 Dr. R. Thomas Chamberlain, Dr. Dwight E. Adams, Dr. Joseph Almog (即倡議法務部調查局於 2004 年續辦國際會議之以色列希伯來大學阿爾蒙格教授)。同日赴毒物化學及病理生物學壁報論文區閱讀壁報論文,並與作者們廣泛交換意見,了解最新研究情形。另與本所顧問劉瑞厚教授研究參訪認證實驗室伊利諾州警察鑑識科學中心相關事宜,並與會場遇見中央警察大學李俊憶教授廣泛討論 DNA最新發展趨勢。

二月二十日至二十二日三日均參加相關議程,聽講之題目以化學鑑定及 DNA 鑑定為主包括: GHB Free Acid, A NMR Study of GBL in Water, Implement of

CODISmt, Design of Y-STR Haplotype, Development of AFLP DNA Database for Marijuana, DNA-led ID Program for former Yugoslavia, Influence of Large-Scale DNA testing 等。亦利用時間參觀與大會同時進行的科學器材儀器展,蒐集最新儀器資料及各式實驗室受驗案件電腦管理系統(LIMS)之軟硬體設備。會中並參觀調查局六處柳煌處長及蒲長恩科長張貼本次發表之論文,並與前來閱覽人員廣泛討論。

二月二十日由李昌鈺博士及劉瑞厚博士安排下特赴赴伊利諾州警察鑑識科學 中心參訪,由負責人拉森博士親自接待,帶領參觀並交換意見。參訪紀錄如下:

- 該中心 ILLINOIS STATE POLICE Division of Forensic Servics Forensic Science Center at Chicago 設於 1941 West Roosevelt Road Chicago, IL 60608-1229,為伊利諾州警察系統的總實驗室,負責全州警察刑事證物鑑定,目前完成認證之鑑定項目有六項。
- 2、該中心每年約受理65,000案件以上,其中百分之七十為藥物濫用(即毒品)案件,証物之收發均全程使用電腦管理系統追蹤,並設有頗具規模儲藏室妥善保管所有證物。
- 3、該中心包含四個獨立實驗室區,
 - (1) 第一區為槍彈及工具痕跡實驗室,大部分案件為彈道比對及槍支樣 品及彈道資料建檔,該實驗室運用 IBIS 彈痕電腦建檔比對系統,可 以快速比對出涉案槍械並建檔供未來比對用。
 - (2) 第二區為指紋實驗室,運用雷射技術,得以有效發現潛伏指紋,並運用 AFIS 指紋電腦建檔比對系統,可與聯邦政府或其他各州政府電腦指紋系統連線,快速比對涉案指紋。
 - (3)第三區為化學分析實驗室,主要工作為濫用藥物篩檢及氣象層析質 譜儀確認分析。由拉森博士講述下,美國的安非他命的濫用已達相 當嚴重的程度。
 - (4) 第四區為 DNA 實驗室,下設生物分析及 DNA 分析兩單元,主要

鑑定項目為 STR,工作項目為暴力犯罪、性犯罪及失蹤人口比對, 並參與聯邦政府之全國性 DNA 建檔計畫採用 CODIS 系統。

- 4、另設微證物實驗室負責特殊案件,如縱火、重大刑事案件等,配備有各 式精良之儀器包括電子顯微鏡、X光繞射分析儀等。
- 5、本單位與美國FBI新設中區實驗僅一路之隔,二者似有彼此支援、合作、整合,美國中區包括芝加哥地區的刑事鑑識工作。

此行心得與建議:

- 美國刑事科學學會為一歷史悠久、專業性極高之團體,從辦理本屆年會中亦能體會其規劃週到之處,包括住宿安排、報到註冊步驟、名牌製作、議程安排等均極為流暢。
- 2、911事件後,反恐作為已成為全美國甚至全世界最重要之工作,鑑識 科學亦以支援反恐作為為重要方向,本次會議即有多項主題與反恐作 為相關。本所如舉辦相關國際會議,亦宜包含此項專題,以符國際潮 流。
- 3、 大會標誌均以淡藍色為體,與同時舉行的其他會議及活動有所區隔。
- 4、 大會服務人員包括約僱人員、志工人員及飯店人員,支援人力十分充足。
- 5、 大會場地及各項子題演講場地寬敞配置得當,與會人員均感舒適而毫無壓迫感。
- 6、 惟因與會人士過多,致沒有安排餐點、大會現場也有服務人員投影機 操作不夠熟練等小缺點。
- 7、本所如欲舉辦類似國際會議,宜慎選會議地點,應考慮具有充分之生 活機能及強化工作同仁應變能力,以達到會議研習、聯誼的效果。

(二) 美國驗屍官法醫師學會一九九三年年會 (Annual Conference, the International Association of Coroner and medical Examiner):

參與九十二年六月八日至十二日於美國喬治亞州亞特蘭大市於有名的史威旅館召開美國驗屍官法醫師年會(Annual Conference, the International Association of Coroner and medical Examiner),主要並邀請李昌鈺博士請授有關法醫科學新知會議課程如下:

第一日:

- (一) 喬治亞州法醫刑事偵查工作的運作機能-Kris Sperry 法醫師
- (二) 死亡原因及死亡證明書開具及解讀-Eden 法醫師
- (三) 血漬形態分析-Jerry Findley 博士

第二日:

- (一) 法醫科學新知: 生物痕跡證物-李昌鈺博士
- (二)法醫科學新知:人體生物形態證物-李昌鈺博士
- (三)法醫科學新知:犯罪現場重建-李昌鈺博士

第三日:

- (一)性犯罪與性行為特質-Vernon Geberth 警官
- (二)性犯罪的犯罪偵查-Vernon Geberth 警官
- (三)強姦、性奴隸與脅迫性性虐待案例- Vernon Geberth 警官
- (四)系列性謀殺-Vernon Geberth 警官

第四日:

- (一) 美國交通與鐵路事故的災難處理-Bob Keane 博士
- (二)窒息死亡-Bert Lauwers 法醫師

大會成員:

本學會為以美國及加拿大較偏僻的州郡中的法醫辦公室運作成員為主,並以驗屍官或驗屍官與法醫師混合之法醫辦公室為主要的法醫師、驗屍官之會員為主,會員中多為律師、醫師為主,僅有少數為法醫病理醫師。他們所屬的法醫辦公室均較偏遠,法醫、刑事科學資源均較一般貧乏,所以處理案件的態度上亦與大城市的主任法醫師辦公室的處理方式稍有差異,遇到有較棘手的案子,常會聘用或尋求外界法醫病理專家支援。

教案法醫科學新知特質:

(I) 縱火現場重建

除了李昌鈺教授有關一般法醫新知外特別述及縱火現場之採集及現場 犯罪形態及現場重建特質。

在縱火現場採集之證物類型是依據縱火犯放火的方式而定。一般而言 大致不出以下三大類:(1)燃爆裝置、(2)、可燃液體、(3)其他相關證物, 例如血液、衛生紙、毛髮、纖維、指紋、工具器具使用痕跡與足跡鑑定等。 燃爆裝置的檢視主要是為了幫助辨識。一旦辨識出其裝置的型號及製造商, 便為案情偵查找到一個有利的切入點。巨觀(Macroscopical)與微觀 (Microscopical)檢視法是檢測然爆裝置的常用技術;而檢查分析各類相關 證物方法亦各有不同。

縱火犯在縱火時經常使用促燃劑,因此雖然其他相關的證物亦十分重要,但鑑識專家在偵查縱火案時最常做的事,便是重建並判定現場所使用的 促燃劑究竟為何種類型。

未知促燃劑的辨識,通常是利用已知液體燃料在相同條件下燃燒的色層分析圖加以比較,基本上依據其比對的程度可做出以下四種辨識:

1、液體燃料之正確辨識

若未知促燃劑的色層分析圖與某一液體燃料形態相符,則可推論出正確的辨識結果。通常液體促燃劑可以從縱火犯在現場遺留的瓶裝物內蒐集而得,便可以此作為辨識樣本。利用電腦已知之 GC 與 GC-MS 檔案參

考,可以加速此比對過程。

2、促燃劑鑑識結果與某種液體燃料類似

從現場殘留物蒐集而得的促燃劑,由於高溫以及蒸發因素,大多數時候 已產生變化,其中部分內含物可能還因蒸發而消失,造成此類樣本鑑識 的困難;此時便可利用部份已蒸發的氣體,產生模擬液體樣本,作為參 考。每一種參考峰型圖樣可以利用質量偵測器加以辨識,便可歸納得出 類似某一種液體燃料的辨識結果。

3、辨識為某一類型液態燃料

如果大部分汽化性物質由於溫度與汽化過程中流失,則樣本的便是將變得非常困難。如果色層分析比對的資訊仍然足夠的話,有經驗的鑑識專家可以將這些未知的物質分為以下類別:

- (a) 輕石油提煉物 (Light petroleum distillates, LPD): 此類包含 C4-C8 成分
- (b) 類汽油成分:此類包含 C4-C12 成分
- (c)中石油提煉物(Medium petroleum distillates, MPD): 此類包含C8-C12成分
- (d)重石油提煉物(Heavy petroleum distillates, HPD): 此類包含 C10-C23 成分

4、辨識為某種成分混合物

最複雜的促燃劑辨識,便是縱火現場中已遭熱分解的物質。這些遭熱分解的物質由各類燃燒物組成,在色層分析圖比對上呈現出許多不同的峰型,其中有些可以辨識,有些即使藉助 GC-MS 仍然無法辨識,因此只能推論出該未知樣本包含某類組織成分之混合物。

(II) 性奴隸及性犯罪

美國近年幾個性奴隸犯罪個案均以宗教信仰為主軸的洗腦式欺騙手腕

來禁錮少女一段時間,有些個竟長達五年之久。Vernon Geberth 警官是一位 紐約市的兇殺犯罪偵查組的退休警官,現為接受顧問性質的犯罪諮詢顧問, 而專長為性犯罪偵查工作。在陳述的性奴隸個案更為駭人心絃。一個個案的 特質為非宗教性的性奴隸個案。

性奴隸的個案特質:

- 1、 兇嫌為白人、中年人。
- 2、 有女友為共犯 (如姊妹、親人的輔助共犯、家人參與)。
- 3、 地處偏僻區、大峽谷地區、地廣人稀之地區。
- 4、 職務為國家公園巡邏管理員。
- 5、 對象受害者為逃家女子、妓女、外國人或吸毒、煙酒濫用者。
- 6、利用生理必須的需求使被害人就範,如禁尿、禁食、禁止睡眠。
- 7、在喪失意識下進行催眠或洗腦逼迫受害人順從就範遂行性奴隸虐待行為。
- 8、利用特製囚間設有各式性虐待刑具(如設於貨櫃車內),進行性奴隸性虐待,並製成影本、相片達到加害人或共犯的性滿足。

(III) 系列殺人特質:

- 1、 兇嫌為白人。
- 幼兒時有不正常的性經驗或遭性虐待的病史並以其加害經驗為報復對
 象。
- 3、性行為不正常。超性行為或性無能。
- 4、系列殺人之嘗試階段的第一位受害人常在居住地區五公里內,一般為熟 識的鄰居、同學或同事。
- 5、可在案發後遷移(有些個案即以活動的旅行露營車 RV 為居住地),並續而擴大尋找受害者的範圍。

- 6、有些個案會將屍體部份器官保存或屍體用同一模式處理。
- 7、有些兇嫌會製作紀錄,留下相片或行兇後達到心理上滿足的紀錄或圖片。
- 8、常由同一形態或相同殺人手法,如時間點、殺人手法如刀、槍、絞扼、 毒藥物等。
- 9、受害人有同一形態之性別、年齡、膚色、髮型甚至於姿色、體態及職業 (如妓女、護士、應召女郎、酒女、女學生、幼童等)。

(三) 多與國際法醫師學會一九九三年年會 (National Association of medical Examiner):

九十二年九月十九日至二十四日在加州聖荷西(San Jose,CA)舉行的國際 法醫師學會年會(National Association of Medical Examiner)並發表論文兩篇,甚 獲高度評價。本學會實為世界級國際唯一的法醫師學會,素質相當高,有興能發 表主動脈二瓣膜異常於邁阿密郡進行的研究報告。及另一篇我結合台灣空難的處 理經驗與美國邁阿密郡處理一九九六年 ValueJet 空難處理綜合經驗,並以空難處 理之SOP為理論,於會後許多學者均向我詢問相關問題及發表評論意見。(如附 件)

(四) 美國中南區年度研習會(虐兒案件的偵查與現場重現研習):

九十二年六月三日到五日參與美國中南區年度研習會,實際學到虐兒案件的 偵查與處理。同時李昌鈺博士亦提供一個犯罪現場的研習主題,為一個人遭受高爾夫球桿敲擊後,又再遭二個槍擊事件,現場遺留兩個彈殼,二個酒杯及兩個煙蒂,在與會一百多個人觀看現場並由現場勘查人員提出報告後,即發給答案卷(考題),提供一系列的問題包括凶嫌幾人、兇器為何、彈道走向、死因為何、現場形態的分類(如熟人或生人)等,極具實用偵查的學習價值,參加研習會的所有法醫、刑事人員均感受獲益良多。

(五) 邁阿密郡法醫刑警兇殺案研習會

本會為每月第一週的週三中午在風景優美的高爾夫球場,會議廳舉行,均由 法醫師主講供邁阿密郡刑警同仁了解法醫解剖案件的偵查進度並教導法醫案件證 據蒐集的結果及解讀。最令我驚訝的是他們有明定法醫師不能在研習會時請刑警 同仁吃飯。令我感受到美國法醫與刑事科學細統的獨立偵查體系及制度下,保有 其合作的關係及獨立自主的運作精神。

(六) 邁阿密郡大災難處理演習

參與邁阿密郡的年度大災難處理演習過程,由該郡動員了上千警力在有名的 足球場進行演習,其中尚包括沙林毒氣等恐怖分子攻擊時的處理過程,相當逼真, 雖觀看觀模為主,仍不失每年演習、教育,演練中溫故知新的過程,本人亦以沙 林毒氣專家的立場,提供改進意見;包括殺林毒氣的清洗不宜用水沖洗,而應以 簡易酸、鹼或肥皂水、漂白劑先行破壞再進行沖洗以避免二度污染。

二、 法醫刑事參訪

台灣法醫制度與美國法醫制度之比較,可把台灣法醫制度歸納為法醫師與驗屍官混合制度,美國法醫師制度又以「主任法醫師制度」主導,如州、市、郡、區域性之死因調查工作。而美國因為幅員廣大,部分區域仍採取驗屍官或驗屍官與主任法醫師混合制度。唯美國採驗屍官制度則為人口密度稀小,或地處偏僻地區。

美國各地設有法醫調查員(deputy medical investigator)由當地的醫護人員,包括一般醫師、護士、急救護理人員來兼職,按件計酬。遇有可疑非病死之死亡案件,由當地之法醫調查員前往相驗,切步檢視屍體,並蒐集死亡原因資料,查訪死者家屬、證人、查閱病歷等,然後將全部資料報告法醫調查中心,先由該中心之副主任法醫調查員(supervising deputy medical investigator)加以審查,資料不全者

命其加以補充,如已齊全則向法醫師報告,由其綜合判斷,若無疑問可確定死因, 則通知當地法醫調查員就地處理完畢,若有疑問則安排屍體於翌日送至該中心複 驗或解剖鑑定死因。

此行目的:

- (一)了解美國法醫制度。
- (二)改善台灣法醫解剖鑑定制度。
- (三)改善台灣相驗及死因偵查制度。
- (四)建立設備完善之法醫研究鑑定機構。
- (五)了解國際最新法醫鑑識科技發展。

(膏)美國法醫制度

台灣法醫制度與美國法醫制度之比較,可把台灣法醫制度歸納為法醫師與驗 屍官混合制度,美國法醫師制度又以「主任法醫師制度」主導,如州、市、郡、 區域性之死因調查工作。而美國因為幅員廣大,部分區域仍採取驗屍官或驗屍官 與主任法醫師混合制度。唯採驗屍官制度則為人口密度稀小,或地處偏僻地區。

(甲)主任法醫師制度:

主任法醫師制度為常見之法醫制度。美國法定為主任法醫師制度者為 州,唯美國採聯邦制,州財政獨立,各州又以市郡為單位,行政財務各自獨 立,所以如美國佛羅里達州則分別有各個獨立法醫中心,每個法醫中心視財 務行政情況,由各郡視大小、治安情況、人口分佈而成立「郡法醫辦公室」, 如美國佛羅里達州邁阿密市則獨立於達地郡(Dade county)成立「達地郡法醫辦 公室」及獨立於橙橘郡成立「橙橘郡法醫辦公室」。(見美國邁阿密郡法醫中 心參訪)

(I) 橙橘郡法醫辦公室:

橙橘郡是佛羅里達州八個法醫辦公室之一,位於佛羅里達州中部

Orlando 市由六個郡合組而成,其機構為三層樓建築。一九八五年建立,該郡人口約為一百廿萬。辦公室特點(見美國邁阿密郡法醫中心參訪)

(Ⅱ)馬里蘭州巴爾的摩法醫中心(州法醫制度)

1、 州法醫制度:

此州法醫制度以人口、幅源分佈,較類似我國以法醫研究所以主要法醫機構的建構機能。唯一不同且我們的優點是將國家一流的毒物化學及血清分子生實驗室歸併一同運作。美國同屬州法醫制度者尚有康州、新罕布夏州、華盛頓特區、達拉維爾州、緬因州、麻塞諸塞州、密西西比州、新澤西州、墨西哥州、北卡來納州、奧克拉哈馬州、羅總島、田納西州、猶他州、佛蒙特州、西維吉尼亞州、維吉尼亞州。美國馬麗蘭州全州人口五百萬,每年死亡人口約佔1%,20%相驗率,剖率為35%,全州只有一個法醫中心。一九三一年由 Dr.Fisher 在美國成立之最早法醫中心,現由主任法醫師主持,其職位由州政府直接指派,另有六位法醫師、助手五人、照相師二人、駕駛助理二人、死亡現場法醫調查員六人。本所顧問孫家棟醫師、盧納密醫師即為此中心訓練回國。

馬麗蘭州各郡均有法醫師,為兼職法醫師,不一定為病理醫師,有的為皮膚科、眼科、內科、外科均直接向州主任法醫師負責。鑑定案件期限: 凶殺案:三十天,警察用槍造成死亡:七天,檔案存檔:五年。由法醫 調查員、郡區法醫調查員負責或殯儀館與法醫中心有合同簽約負責解剖 或複驗屍體之運送及現場調查工作。運屍費每英哩美金約4.5角,現場 法醫調查員一定在警察人員抵達後才進行現場調查,檢視屍體及運送證 物(屍體)之工作。每年法醫中心經費六百萬美金。

2、馬里蘭州法醫師制度:

主任法醫師(地檢署主任法醫師)助理法醫師 Associate Medical Examiner(醫師、牙醫師)法醫師審議委員會組成章程(大意)(附件二):

- (1) 根據州法組成成員九人,依法任命地檢署(郡)主任法醫師。
- (2) 地檢署(郡)主任法醫師能任命助理法醫師。助理法醫師必須為醫師、牙醫師。
- (3)助理法醫師之任命在地檢署(郡)主任法醫師離職後即消失。新任法 醫師由新任主任法醫師任命之。
- (4) 法律上所指之法醫師為主任法醫師及助理法醫師。
- (5) 地檢署(郡)主任法醫師負責指導助理法醫師之鑑定工作。

3、巴爾的摩法醫中心行政報表

- (1)人員工作分擔比例由法醫師、統計人員、現場調查員及相關行政 人員分別分擔。
- (2) 報表:相驗、覆驗、現場調查、解剖、檢驗、報告數、週、月、 年統計、製作報表。
- (3) 年度工作成果報告。
- (4) 會計報告、月、年統計。
- (Ⅲ)德州聖安東尼市的貝克郡(Bexar County)法醫中心(見美國邁阿密郡 法醫中心參訪)

(乙)主任法醫師與驗屍官混合制度

加州為美國各州採主任法醫師與驗屍官混合制度之代表地。唯雖稱為混合制,但在主要城市均以主任法醫師主體,而且以法醫病理專科醫師為主導。 現以舊金山 SantaClara 郡為例:

SantaClara 郡法醫中心位於 850 Thornton Way,San Jose CA 主任法醫師

AngeloK.Ozoa 和副主任 NathanL.Gossett 熱烈歡迎我們且給予我們大量資料。 他們深知籌設新的法醫中心的困難,謂他們也曾花了半年的時間跑遍美國加拿大等國各大法醫中心,他們也推崇佛羅里達州邁阿密達地郡法醫中心,德州聖安東尼市貝克邵法醫中心的設計、規畫。SantaClara 郡法醫中心也是一幢全新建築,充滿活、靈性和諧的設計。

1、建築物特性:

樹木庭藝果樹藝術品圖畫之擺設,沖淡了法醫中心陰森之感覺。強調空調系統之完善,排除了屍體遺留之惡臭。解剖室之完善設計,地面有斜度之排水兼有防滑地板,可沖洗,四周牆壁維持有四呎高磁磚板,避免血跡、污塵沾粘。類似開刀房之設計。唯強調空調通風量要加大。建築物保全系統設計安全完善,屍體與工作人員出入口為不同。強而有力的不斷電系統。電腦保全控制系統亦規畫在不斷電系統內。停屍間有一窗子供家屬辨識用,用一玻璃隔開。(另有法醫中心用閉路電視,辨識效果不好,如德州聖安東尼市法醫中心本來設有一個窗子,親人可觸摸屍體,反而造成家人痛哭使法醫中心成了殯儀館,後來將窗子除去才恢復法醫中心面貌)。唯本國國情不同,設計上尚待集思廣益。

- 2、 完整的現場調查員及驗屍官訓練。
- 3、 屍體及證物的後送系統。
- 4、加州舊金山市法醫中心與殯儀館簽定有屍體搬運合同。

個體死亡後經由相驗後認定為法醫師之管轄後,則要扣押屍體及相關證物, 若法醫中心有配備車輛則可經由法醫調查員幫忙,將屍體運回,否則可與民 間優良有信譽之殯儀館提供服務。現就其法醫中心與殯儀館簽定合同概述如 下:

(1) 搬運屍體:舊金山 SanJose 之 Santa(甲方)則與民間簽定合同(乙方) 並概述其合同內容:乙方負責將屍體搬運至甲方解剖場地或其他甲 方所要求之場地,搬運要求可經由有線電話或無線電話經由授權便 使用之密碼要求之。運送人員要求如下:

- A. 搬運屍體人員應有專業知識及精神,並考量家屬在場之情緒變化,安慰處理。
- B. 搬運屍體及證物時要遵守法醫師、法醫調查員及相關人員之指 示搬運。
- C. 搬運屍體時不得要求家屬至特定葬儀社,行使商業行為。
- D. 一般搬運情況應儘可能搬運屍體及附屬品,運送時以面朝上, 手臂在身體雙側為主。
- E. 屍體及相關證物在搬運前要用名牌寫清楚,並點清並由在現場 警員或家屬簽名。
- F. 遇搬運物有傳染病或其他有害物時應標示清楚,並妥為隔離。
- G. 運抵解剖室後要與法醫中心簽收人員清點證物完成簽收手續後 才能離去。
- (2)合同之乙方必須有至少兩輛或多輛運屍車,應視法醫中心運屍需求 而調配。每輛運屍車應整潔,配備折疊式運屍檯車、消防器材或其 他相關法醫人員要求之器材。
- (3)合同乙方要維持廿四小時機動特命,在A區內應在甲方要求下四十五分鐘內抵達,B區內應在甲方要求下六十分鐘內抵達,C區內應在甲方要求下七十五分鐘內抵達。機動待命負責之責任區分為A、B、C區,分區如下:

A區指離法醫中心 0-10 英哩內

- B區指離法醫中心 10-20 英哩內
- C區指離法醫中心 20-60 英哩內

若因不可抗拒之原因無法抵達應立即通知甲方,甲方可另行找尋其他代替工具或公司。

- (4) 乙方可要求甲方提供無線頻道或行動電話聯絡號碼以便隨時聯絡。
- (5) 乙方人員每輛搬運車輛得配備至少兩位年滿十八歲人員並經法醫中 心安全查核之核備。工作人員需著制服、打領帶、戴手套,並配戴 由法醫中心認可之證件。工作人員必須具高度道德觀念、誠實、無 不良癖好,除非在某種特殊情況,如嬰兒死亡(小於二歲)則可由一名 工作人員前往。
- (6) 乙方在特殊情況下可找尋其他公司幫忙唯應與甲方為單一全權合約 負責對象。
- (7) 乙方所聘雇人員待遇、福利應合乎勞基法律條文規定。
- (8) 甲方付費標準:在同一輛車每加運一具屍體加計美金廿五元。乙方 不得因加時或其他理由要求特別費用,除非特別服務是由法醫中心 法醫人員要求下行使。乙方每月則應將工作報表送甲方以做為乙方 申請付費之根據。

類別	美元	台幣(1:34=美金:台幣)
A區一位雇員	7 0	2 3 8 0
A區二位雇員	8 5	2890
B區一位雇員	7 5	2550
B區二位雇員	8 8	2992
C區一位雇員	8 0	2720
C區二位雇員	100	3 4 0 0

- (9) 甲方可因乙方不履行合約而終止契約。
- (10) 乙方對車輛、員工應有適當保險。並經郡政府核備。
- (丙) 驗屍官法醫師混合制度

美國的驗屍官制度之法醫辦公室均在較偏遠之區域,惟偏僻地區之城市有些採主任法醫師制度,有些城市則採驗屍官主任法醫師混合制度。在美國賓州的匹司堡市即為阿里根尼郡法醫辦公室(Allegheny County Coroner's Office),主持人即為跟台灣關係密切,曾因陳文成博士死亡案、余登發先生死亡及陳水扁總統槍擊案參度來台參與偵查工作的 Cyril H. Wecht(魏區)律師間法醫師的頭銜。在美國亦只有少數幾位曾獲得兼有醫師及律師的專業訓練之法醫師。該法醫中心為少有兼有法醫及刑事鑑識能力的法醫辦公室,惟由法醫病理鑑定功能為主導,若兼有刑事鍵識功能則實驗室的管理即顯現出與警方的刑事鑑識功能的重疊致有機能執掌重複致有搶案子或推卸案子的情事發生。魏區主任為強勢領導的法醫辦公室領導者,每年的年報中顯示 2000年中全部人口 1,281,666 人口中,死亡人數 15,403 人 (1.201%),相驗 5835人 (相驗率 37.8%),其中解剖數 1157人 (解剖率 19.8%)。

筆者前往參訪,受魏區主任熱烈招待,並致送大量書籍,參考資料、文 獻、並敘及要在加強雙方的建教合作,並歡迎我國的法醫師前往受訓、訪問。

(一) 康乃迪克州刑事鑑識中心參訪: 州法醫師制度的實例

九十二年十一月除追隨李博士昌鈺長達兩週的專題演講、參訪及個案討論, 地點包括南卡、北卡州、賓州、華盛頓、喬治亞、佛州外,並於期間赴康乃狄克 州警察鑑識科學實驗室參訪,由李昌鈺博士及負責人柏貝克處長(Major Timothy M. Palmbach)親自接待,召開歡迎會並討論參訪計畫。

康州刑事鑑識科學研究中心於一九九二年三月三日由李昌鈺博士所建立州公共安全部法醫刑事科學研究中心,李昌鈺為畢業於台灣中央警官學校第六期高材生,於一九五〇年代即前來美國,在獲得博士學位後並曾任康州大學刑事科學系教授兼主任,一九七八前由州長相邀出任主任(Director)並經十五年的經營成立了美國最早期 DNA 鑑定實驗室,及相關刑事學鑑定實驗室,並經破了數個難度極高的案子建立了卓越的聲譽,包括最近的美國世貿大樓爆炸案及甘乃迪家族的威廉甘乃迪史密斯在佛羅里達的強暴控訴案件等。

參訪紀錄如下:

- 1、受訪單位 STATE OF CONNECTICUT Department of Public Safety Division of Scientific Services,為康州警察系統的總實驗室,負責全州警察刑事證物鑑定,實驗室位於 278 COLONY Street, Meriden, CT 06451。
- 2、參觀本部實驗室,解說者為雷德博士。該實驗室為一樓之平面建築,中央區域為實驗室,外圍區域為辦公區,參觀走道介於二者之間,走道兩邊佈滿介紹案例及論文之壁報,方便展示及參觀。
- 3、証物之收發均使用電腦管理系統追蹤,並設有儲藏室妥善保管證物,送 驗証物需填妥送驗單,以便簽收管理,另外該實驗室並備有檢體送驗規 則供送驗單位參考。
- 4、血清實驗室負責傳統方法之證物辨識,如人血、精液、尿液之確認等, 為方便參觀及教育,此處均為落地窗。其隔壁為 DNA 抽提室,門戶緊閉, 避免污染,檢體送進抽提室後即不再回流,以免二度污染。
- 5、介紹走道兩旁壁報,包含該實驗室發展史、物理鑑定比對方法、新一代實驗室興建過程、操作生物檢體注意事項、毛髮比對方法、DNA鑑定抑制物之克服、射擊距離之判定、纖維化學物殘跡氣象層析儀確認、槍彈射擊過程追蹤、彈痕比對、指紋鑑定等。
- 6、問題文書鑑定包括偽變造文件及筆跡簽名之鑑定等。
- 7、DNA鑑定實驗室,從檢體辨識、DNA抽提、PCR試劑操作、PCR儀器 複製、STR分型、電腦分析為一管制嚴格之單行道,切勿反向操作,以 避免污染。
- 8、另參訪設於 10 Clinton Street 4th flr Hartford 之毒物分析實驗室,由柏貝克處長領隊,隊長克利沙維奇(Captain Paul krisavage)全程講解。
- 9、該實驗室配備有氣象層析質譜儀及免疫分析儀等先進儀器,另配合警方 取締酒後駕車測試需要,設有呼吸測試器校正部門,維持全州交通警察 使用之測試儀器的精確度。

- 10、 參觀後柏貝克處長並召集所有工作人員舉行座談廣泛交換意見,席間本 所柳處長曾詳盡介紹本所鑑定業務並接受詢答。
 - (1) 人員編組:六十人,下設

犯罪科:化學、血清學、基因工程 DNA、現場證據檢鑑。

鑑識科:疑偽文件、武器槍彈鑑識、指紋鑑識。

行政支援科:證物收發、行政管理、總務、攝影、證物現場重建。

- (2)新的科技大樓經過五年的規劃,就在舊建築的對面山坡上是原來的游 泳池,也是原有的恐龍遺趾,所幸在挖掘工地時均未發現古代恐龍遺骨 化石,預計花費七百萬美金,兩年內將要完工。
- (3)在我們受邀實際參與了李博士犯罪偵察過程及李博士辦案的特殊技巧後更能體會李博士的辦案技巧:第一案:兩位檢察官和一位警員帶著相片及兩大箱證物來到李博士辦公室。李博士亦要求我們共同參與。由一件衣服李博士能洞窺嫌疑犯稱「死者為持槍自殺後,嫌疑犯才抵達現場」之供詞是虛假的。原來嫌疑犯所穿之衣服上的血跡斑斑顯露嫌疑犯為近距離開槍射殺死者所飛濺出的血斑,細而密飛向一定方向成橢圓細血斑,事後抵達現場則不可能有如此細密之血斑痕。第二案:美國有名的John 盲人檢察官,前往拜訪李博士,就有關一位瘋狂謀殺六人之案件,李博士亦要求我們法醫師們共同參與。
- (4)康州警局並備有三架飛機,並有完善的犯罪偵察車。可見在辦案前之 準備及現楊儀器、交通工具之充實,可為犯罪偵察破案之關鍵。

隨後並參觀設於新海芬大學(University of New Haven)中之率昌鈺刑事科學研究中心(The Henry C. Lee Institute of Forensic Science at the University of New Haven, University of New Haven 300 Orange Avenue West Haven, Connecticut 06516)。該中心係由李昌鈺博士募集之捐款所設立,定期辦理研討會、訓練班及提供獎學金給全世界從事鑑識工作者,接受專案委託訓練為主要工作。特別介紹掃描式電子顯微鏡 EDX 對微證物鑑識、比對子彈、火爆彈藥之科學鑑識。李博士對血跡噴濺及

(二)美國匹茲堡法醫中心參訪:驗屍官法醫師制度的實例

美國的驗屍官制度之法醫辦公室均在較偏遠之區域,惟偏僻地區之城市有些採主任法醫師制度,有些城市則採驗屍官主任法醫師混合制度。在美國賓州的匹司堡市即為阿里根尼郡法醫辦公室(Allegheny County Coroner's office),主持人即為跟台灣關係密切,曾因陳文成博士死亡案及余登發先生死亡兩度來台參與偵查工作的 Cyril H. Wecht (魏區)律師間法醫師的頭銜。在美國亦只有少數幾位曾獲得兼有醫師及律師的專業訓練之法醫師。該法醫中心為少有兼有法醫及刑事鑑識能力的法醫辦公室,惟由法醫病理鑑定功能為主導,若兼有刑事鍵識功能則實驗室的管理即顯現出與警方的刑事鑑識功能的重疊致有機能執掌重複致有搶案子或推卸案子的情事發生。魏區主任為強勢領導的法醫辦公室領導者,每年的年報中顯示 2000 年中全部人口 1,281,666 人口中,死亡人數 15,403 人 (1.201%),相驗5835 人 (相驗率 37.8%),其中解剖數 1157 人 (解剖率 19.8%)。

筆者前往參訪,受魏區主任熱烈招待,並致送大量書籍,參考資料、文獻、 並敘及要在加強雙方的建教合作,並歡迎我國的法醫師前往受訓、訪問。

(三)美國邁阿密郡法醫中心參訪:主任法醫師制度的實例

主任法醫師制度為常見之法醫制度。美國法定為主任法醫師制度者為州,唯 美國採聯邦制,州財政獨立,各州又以市郡為單位,行政財務各自獨立,所以如 美國佛羅里達州則分別有各個獨立法醫中心,每個法醫中心視財務行政情況,由 各郡視大小、治安情況、人口分佈而成立「郡法醫辦公室」,如美國佛羅里達州邁 阿密市則獨立於達地郡(Dade county)成立「達地郡法醫辦公室」及獨立於橙橘郡成 立「橙橘郡法醫辦公室」。乃試以二例分別敘述其特性:

(I) 達地郡法醫辦公室:

位於美國佛州邁阿密市則為美國目前大型之法醫辦公室之一,設備完善,設計與行政流程均有超出水準並被選為一九八九年美國最有價值的公立辦公建築之一。經由 Dr.JosephDavid 介紹達地郡法醫辦公室之特色為:有法醫病理、法醫毒物、法醫人類學,完整的法醫案件、屍體、證物押運系統並配備有法醫現場勘驗員(investigator)進行與死因調查過程有關現場搜證及調查工作。達地郡法醫辦公室簡介:

1、人員配置:

六十三位職員。分行政法醫病理專長之法醫師 11 員(包括主任法醫師)、解剖助手9員、毒物學7員、現場勘驗調查員9員、攝影師3員、秘書打字員7員、社工人員包括心理分析師2員、警衛5員、總務3員、法醫檢驗技師7員,以及其它人員,乃以簽約合同與民間公司聘定合約如清潔人員等。

2、辦公室規劃:

辦公室之設計由全體員工提出需求共同參與設計並具有下列特色:(1)人性化設計,一般職員與證物(屍體)出入分開。各自有獨立走道、通路,運送證物、屍體人員不會干擾法醫辦公室工作人員。(2)每個解剖實驗室均有窗子,解剖室地下室亦有 1.5 呎高之窗子露出地面。(3)腐敗屍體解剖室,發炎傳染病屍體解剖室與一般解剖室分開各自獨立通風設備。(4)採用最新電場吸附灰塵與除臭系統(Cosa Tron)為利用潛水艇內除臭技術,唯一吾人所見在解剖室內亦無血腥等腐臭味道。(5)無塵易潔設計,設計時包括如何輕易清掃,應使用何種傢俱設計,何種天花板、地板(包括花紋顏色、質料及地磚間縫粘著劑)。工具廚具均有斜角度避免了灰塵粘留死角易於清理。(6)解剖室內充分亮度。Dr.David 強調亮度是設計人建議之雙倍以上,特別強調解剖鑑定時光線要充足。(7)車庫為超大聯接大型廣場可放置中小型飛機、車輛等殘骸或檢視降落傘以利鑑定。(8)超大型冷凍室,以利大型災難時大量屍體存放用,最多可達五百員屍體。(9)解剖台最高可以三十台同

時進行解剖。(10)備有緊急不斷電系統。600KW,KVA705AMP(Dr.David 特別提到初期設計緊急電源所使用之柴油機置於一大房間忘了裝通風 扇,初期一斷電柴油機立即過熱,加了風扇才解決了問題)。(11)具 備有一流攝影器材及攝影人才,屋內有專用電纜連至戶外,具有舉行 中型記者招待會供應電視轉播等功能。(12)具完善毒物學實驗室、大 型冷藏、冷凍冰櫃間可長期貯存標本。毒物及組織標本鑑定完後亦因 個案貯存在小瓶子內,所佔空間亦小,亦可供未來案件統計分析研究 用。

3、佛羅里達州達地郡法醫中心經費分析

2004 年全額經費美金 7,684,900.00,使用情形分配如下:

項目	費用(美金)	百分比%
人事	5,571,000.00	72.49%
簽約維護費用	248,000.00	3.22%
一般行政維護費用	1,865,900.00	23.72%
 其他	4,3803.00	0.57%

總百分比似超過 100%,其法醫中心尚有接受委託檢驗鑑定之收入來平 衡支出。

(Ⅱ) 橙橘郡法醫辦公室

橙橘郡是佛羅里達州八個法醫辦公室之一,位於佛羅里達州中部 Orlando 市由六個郡合組而成,其機構為三層樓建築。一九八五年建立,該郡人口約 為一百廿萬。辦公室特點:

- 1、主任法醫師制度
- 2、完整屍體押運過程,有三部運屍車及現場調查員制度。
- 3、郡為最小獨立法醫辦公室行政單位,可由數個郡合組成一個法醫辦公

室,費用則由各郡分別負擔。此辦公室費用由三個郡共同負擔之。

- 4、各設有法醫調查員(Investigator)進行現場搜證調查工作。
- 5、每年解剖約七百五十個案件,其中三十件為愛滋病案子。
- 6、在狹窄的運屍間外,有一車輛旋轉台,幫助運屍車輛於狹窄空間內旋轉。
- 7、雇員約略薪水(年薪,美金):主任法醫調查員:四萬(退休警官),法醫 調查員:三萬,主任解剖助理員:四萬。
- 8、建築物採用微橘紅色燈光,溫和感覺。

(四)美國各州法醫中心參訪

参訪美國各州法醫中心,美國同屬州法醫制度者尚有康州、新罕布夏州、華盛頓特區、達拉維爾州、緬因州、麻塞諸塞州、密西西比州、新澤西州、墨西哥州、北卡來納州、奧克拉哈馬州、羅總島、田納西州、猶他州、佛蒙特州、西維吉尼亞州、維吉尼亞州等。

(I) 馬里蘭州巴爾的摩法醫中心(州法醫制度)

美國馬麗蘭州全州人口四百七十萬,每年死亡人口約佔1%,20%相驗率,剖率為35%,全州只有一個法醫中心。一九三一年由 Dr.Fisher 在美國成立之最早法醫中心,現由主任法醫師 Dr.John Smialek 主持,其職位由州政府直接指派,另有六位法醫師、助手五人、照相師二人、駕駛助理二人、死亡現場法醫調查員六人。

馬麗蘭州各郡均有法醫師,為兼職法醫師,不一定為病理醫師,有的為皮膚科、眼科、內科、外科均直接向 DrSmialek 負責。鑑定案件期限: 凶殺案: 三十天,警察用槍造成死亡: 七天,檔案存檔: 五年。由法醫調查員、郡區法醫調查員負責或殯儀館與法醫中心有合同簽約負責解剖或複驗屍體之運送及現場調查工作。運屍費每英哩美金 3.5 角,現場法醫調查員一定在警察人員

抵達後才進行現場調查,檢視屍體及運送證物(屍體)之工作。每年法醫中心經費四百五十萬美金。

馬里蘭州法醫師制度簡介:

- (1) 主任法醫師(地檢署主任法醫師)助理法醫師 Associate Medical Examiner(醫師、牙醫師)法醫師審議委員會組成章程(大意):
- (2) 根據州法組成成員九人,依法任命地檢署(郡)主任法醫師。
- (3) 地檢署(郡)主任法醫師能任命助理法醫師。助理法醫師必須為醫師、牙醫師。
- (4) 助理法醫師之任命在地檢署(郡)主任法醫師離職後即消失。新任法 醫師由新任主任法醫師任命之。
- (5) 法律上所指之法醫師為主任法醫師及助理法醫師。
- (6) 地檢署(郡)主任法醫師負責指導助理法醫師之鑑定工作。

(II) 德州聖安東尼市的貝克郡(Bexar County)法醫中心

貝克郡(Bexar County)法醫中心位於德州聖安東尼市的市郊,受貝克郡法醫中心之主任法醫師之邀請前往參觀。隨行尚有李昌鈺博士等人。李昌鈺博士與 Dr.DiMaio 甚熟,所以 Dr.DiMaio 特別為我們提供了很多資料。

- 1、主任法醫師為 Vincent J.M. Di Maio, 其父曾任紐約市法醫師, 父子檔均 為有名法醫師。著作頗多, VincentJ.M.DiMaio 為 Journal of Forensic Medicine and Pathology 法醫科學及病理學雜誌主編。
- 2、員額編制:共五十一位職員,法醫師六位(全為法醫病理醫師)、行政人員七員、毒物學八員、解剖助手五位、病理切片人員、現場調查員七員、血清學專家二員、DNA技術員一員、火器槍砲專家一員、犯罪專家一員、文件鑑識專家一員,其他尚有約十位聘雇人員。
- 3、案件受理:1991 年為例,貝克法醫中心相驗屍體 4646 件,解剖鑑定案

件 1198 件,現場調查 367 件,另有腐敗骨化屍體驗證 994 件。

- 4、年度經費為 1,815,825.00 美元(1992 年)。
- 5、法醫中心佔地2200平方公尺向德州租地(年息美金1元)。
- 6、1991 年美國德州貝克郡死亡形態,解剖數及解剖率分析:(1) 1991 年相驗 4646 件,覆驗 1750 件,解剖 1198 件,進一步死因及證物 調查 518件,死亡現場調查 367 案,移屍埋葬許可證明 104 件,X-光照相案件 1608 件。(2) 死亡方式分析:1991 件 1750 案件中他殺 20.0%,自殺 12.2%,意外 19.2%,自然死 46.5%,調查中 2.0%,未分類 0.1%。

三、法醫病理專科訓練

(一)辦公室規劃與設置

1、 邁阿密法醫中心的設置與實務作業情形:

面對著法醫中心,可見邁阿密創傷急救中心,頂樓設有直昇機停機坪。(一般美國法醫中心均設在大型醫學中心附近)。

法醫中心的洽公大門:洽公與職員分別不同門出入,便於監控管制,業務門對外開放,屍體、証物及洽公人員均由此進出。圖中箭頭所示為屍體出入口。門口 24 小時均由監視器監控,設有控制室 24 小時人員值班, (監視法醫中心視每一走道房間)入內有一大型停車場,具有良好通風設備。圖 9 為職員出入門,門前有一大型停車場(200 多個停車位)門口有監控器及對講機,管制人員進出,亦可以使用電腦卡刷卡進入。

平時可見殯儀館工作人員,其服裝儀容整齊可見具有專業精神!入口收發處有一地磅,屍體進入法醫中心前先過磅及拍照存証,箭頭所示為照相機,且設內放射線掃描室視情需要使用。停屍間內部 20x20m 大的停屍間共四個,外接收發室,內銜解剖室。

2、 法醫中心的內部規劃:

法醫中心分成五個部門:

- 一、行政部門,
- 二、毒物檢驗,
- 三、証物檢驗,

四、病理檢查,

五、解剖室,可分為:1、一般解剖室,2、腐敗解剖室,3、教學解剖室。

3、一般解剖室:

解剖室內有專責解剖助理,每個解剖檯均有 X 光看片箱與磅秤。並設內 傳真機,可隨時與檢察官、警察局資詢案情用。專責攝影師,備有梯子輔 助鏡頭之截取,設備完善的法醫中心,應有良好的攝影器材與人材,以達 事半功倍之效!解剖之前,助手先行準備用物,醫師可在旁等候,醫師解 剖時旁有助手協助。解剖後標本之收集,備有條碼貼紙,供標示用。

4、解剖室之周邊設備:

牆壁為白板試可供記載備忘用,X 光看片箱、手術燈、水槽。透明排水管彎曲造形,若有子彈類異物掉入,一覽無疑,可防止証物流失。醫師室:醫師室的醫師,於解剖前研判案情,解剖後口述錄音解剖過程。盥洗設備、休息室:供工作人員休閒。一般解剖室旁有電腦供死者個人資料輸入,並有條碼機列印死者基本資料之條碼貼紙,供示別用。某些州立法規定,人死後未經家屬同意,亦可自行剝離死者角膜,供移殖用。毒物實驗室:每個法醫中心均有高水準的毒物實驗室。大型冷凍室:20x20m 供証物、標本冷藏储存。良好的標本保存,可供証物保管與教學研究。廣大的低溫冷藏,人員可直接進入。示範解剖室:可供示範、教學。寄物箱:可存放來訪人員隨身攜帶之物品。

5、法醫實務機構不僅具有良好實務之功能,亦應兼具教學研究之效能!我於 邁阿密法醫中心稍有疑問,法醫師們和行政人員即提供大量圖片、資訊不 厭其煩答覆所詢之問題。相同於巴爾迪摩法醫中心設有各式槍械所造成的 傷口模型,上吊等各種現場射擊模型,做為現場勘驗之教學。

(二) 行政體制與經費運作

現行邁阿密法醫辦公室體會到人事經費的重度負荷,及經費漸次短欠之窘狀,有時真慶幸我國法醫體制在國家級部會下法醫費用相較之下尚可自主運作順暢。

(三) 相驗解剖鑑定制度的訓練及運作及優缺點比較

- (1) 相當完善且具完整解剖制度。惟百分之八十均在解剖完成後即進行死因診 斷,常會有回頭再鑑定之可能性。
- (2)相較台灣我國「法醫研究所」之制度下具有彙整法醫病理、血清證物及毒物 化學的檢驗結果後再來進行最後、完整的法醫解剖死因鑑定書,可慶幸我國 的現行解剖鑑定制度較審慎周密及完備。

四、法醫刑事科學訓練

(一) 刑事科學多訪

九十二年三月間赴邁阿密郡警察鑑識科學中心參訪,由負責人親自接待,帶領參觀並交換意見。參訪紀錄如下:

- 該中心為佛州警察系統的主要實驗室,負責全州警察刑事證物鑑定,目前完成多項認證之鑑定項目。
- 2、該中心每年約受理20,000案件以上,其中包括為藥物濫用(即毒品)案件, DNA型別鑑識、火炮彈藥鑑識證物之收發均全程使用電腦管理系統追 蹤,並設有頗具規模儲藏室妥善保管所有證物,其貯藏室即達兩個足球 場大小的庫房。

3、該中心包含六個獨立實驗室區:

(1)槍彈及工具痕跡實驗室,大部分案件為彈道比對及槍支樣品及彈道資料建檔,該實驗室運用 IRIS 彈痕電腦建檔比對系統,可以快速比對出

涉案槍械並建檔供未來比對用。

- (2)指紋實驗室,運用雷射技術,得以有效發現潛伏指紋,並運用 AFIS 指紋電腦建檔比對系統,可與聯邦政府或其他各州政府電腦指紋系統 連線,快速比對涉案指紋。
- (3)化學分析實驗室,主要工作為濫用藥物篩檢及氣象層析質譜儀確認分析。
- (4)DNA 實驗室,下設生物分析及 DNA 分析兩單元,主要鑑定項目為 STR,工作項目為暴力犯罪、性犯罪及失蹤人口比對,並參與聯邦政 府之全國性 DNA 建檔計書採用 CODIS 系統。
- (5)另設微證物實驗室負責特殊案件,如縱火、重大刑事案件等,配備有 各式精良之儀器包括電子顯微鏡、X光繞射分析儀等。
- (6)法醫刑事藝術研究室:本研究室有兩位法醫刑事繪描專家,可根據報 案人描述凶嫌或目擊者的描繪人。另亦配合體質人類學進行無名白骨 化頭顱骨的顏面重現工作 (Facial reconstruction)。

(二) 相驗與現場勘查制度與訓練

邁阿密之法醫相驗及現場勘查制度相當完善與確實,法醫師及攝影專業人 員遇到下列個案均可能在任何時間應召致現場進行相驗、勘驗的工作,包括兇 般案、警察槍擊案、車禍死亡現場、有他殺疑慮、特殊自殺或勞工傷害意外現 場等,筆者亦完成近五十件現場相驗及勘驗工作,學習到許多法醫相驗及勘驗 技巧。

(三)槍彈火炮實務射擊

國外兇殺因槍擊致死案例達百分之八十以上,法醫病理訓練過程中槍彈火 炮實務射擊訓練相當重要,法醫辦公室每年均安排學員前往警察單位進行火炮 實彈射擊,並且在實務射擊使用各種火炮槍械及最新火炮發展,了解槍擊原理 對法醫解剖實務學習過程中助益頗大。

(四) 槍彈火炮實務檢測實驗

槍枝的種類及殺傷力的鑑識,常需要實務上槍枝的實彈擊發並測試射出火 炮彈藥的初速、撞擊殺傷力。法醫實驗室內設有槍彈火炮實務檢測實驗室就能 輕易經由閃爍照相技術及測速儀測試得火炮殺傷力,在實務上甚為實用。

(五)單一重大兇殺案屍骨殘骸偵查實錄

在九十二年二月初在邁阿密郡的西邊運河挖土疏通運河污泥時,竟在挖土機挖取污泥十挖出一根肱骨,經報導後,法醫辦公室會同兇殺案刑事組同仁十五人花費十天的時間,清理污泥達三噸左右,將尋獲的一個汽油桶內裝有水泥包捆著殘駭、骨駭---呈現一位兇殺案受害人的女性屍體殘駭。此項實務工作與現場經驗體會到單一骨駭的微細證物的專業性偵查及團隊的合作,可導致破案的關鍵。

參、討論

一、法醫刑事認證實驗室參訪

- (一)為因應司法偵審品質提昇之訴求,並提高鑑定結果之公信力,各國鑑識實驗室均以通過認證為努力目標,惟國內目前尚無刑事鑑識之認證機構,甫成立之中華民國鑑識科學會則已設立刑事鑑識實驗室認證規劃小組,擬推動由學會本身擔任認證機構,屆時接受各實驗室申請認證,可能較符經濟效益,否則直接向國外認證機構首次申請認證之經費即高達三萬美金,恐於現在政府財政十分困難狀況下,不易辦理,另國內親子鑑定實驗室之認證業已由行政院衛生署完成初步規劃,本所DNA及毒物化學實驗室之認證宜由此著手。
- (二)經參考目前蒐集到的文獻並從受訪單位中瞭解,實驗室逐步認證之重點包括人員素質與訓練、工作標準化、門禁管理、證物儲存、實驗場所規格等,本所現有實驗室之人員素質與訓練、工作標準化等項目應已符合標準,惟現有實驗室空間設置係建於二十餘年前,人、機、藥品分離尚須強化,不同實驗步驟所需空間需有效區隔,且參訪動線不應妨害實驗室門禁等均需大幅改

進以符合認證需求。

(三)康州州警實驗室原為編制很小,功能不彰的小單位,經過李昌鈺博士二十餘年的努力經營,不但其個人成為全世界最知名的鑑識專家,其實驗室也已成為各國鑑識人員取經之處,究其原因,可歸結為下列三點,有頗為高明且符合時代潮流的行銷手法,積極參與國際學術活動,展現其實驗室所長,本所實驗室如計畫成為國際知名之實驗室,宜仿效其作法再接再厲並建立法醫刑事鑑識的特色。

二、法醫刑事鑑識訓練

- (一)各項鑑定均已朝向自動化設計,例如彈道之比對從子彈裝填、水中射擊、 子彈蒐集、彈痕觀察比對等,均能以電腦控制自動化進行,避免人為誤差。
- (二) DNA 鑑定工作除電泳分析已能完全自動化外,目前正全力研究推動 DNA 自動化抽提及 PCR 自動操作,期能增加鑑定效率並減少檢體交互污染的機 會。
- (三) DNA 鑑識主要儀器 DNA 自動分析儀,已從一條毛細管進步到現在最常用之十六條毛細管,要成為現代化 DNA 鑑定實驗室,非有此項設備不可,本所宜利用經費採購乙台最新型 DNA 自動分析儀,否則會有明顯儀器不足的情形。
- (四) 爭取經費參與國際最新法醫刑事鑑識研習。

三、美國法醫師培訓與我國法醫制度比較及剖析

美國傳統的驗屍官制(Coroner system)主源於英國殖民地時代的民選 驗屍官,當時主要任務為確實執行抽稅事務包括遺產人頭稅等。從 1880 年開始美國麻薩諸塞州(Massachusetts)就倡導法醫師制(Medical Examiner System),現今美國的法醫師制即是以法醫病理專科醫師為主導的法醫師制度,就法醫制而言美國的法醫病理專科醫師,要經歷五年的臨床病理及組織病理的訓練,再加上一至二年的法

醫病理學之訓練,現在全美國在三十年來建立法醫病理專科醫師制度以來已有一千多人通過考試,取得法醫病理專科醫師資格(Kurosu, 1991)。以美國眾多的法醫病理專門人才亦產生法醫師不足的現象乃導於(1)教育訓練場地不易尋覓。法醫師的訓 練常須和警察及司法檢察官配合,只有在大城市政府設立的法醫中心,才可能具有此種能力來訓練正規的法醫病理專科醫師。(2)缺乏研究環境。一般地方政府設立的法醫中心,只求法醫業務的推展,卻缺乏醫學院良好的學術研究環境,此種現象阻止了眾多優秀的法醫病理專科醫師執行法醫師的鑑定工作。我國「法醫研究所」提供絕佳的研究環境正可為美國法醫中心之借鏡。(3)美國法醫師需出庭作證。我國法醫師在改進專家證人出庭作證方式、出庭費用的增加及應有的尊重,學習交互誌問制度之下,亦可減少鑑定案件出庭作證亦令許多法醫病理醫師望而怯步之理由。

肆、結論與建議:

一、法醫制度與法醫解剖室規劃方面

- (一)台灣法醫制度有獨具檢察官主導的死因偵查體制,可漸次在建立法醫師在 司法死亡案件的偵查權,惟在檢察官在兇殺及相關疑難案件的偵查主導確 為法醫偵查制度不可或缺的動力。
- (二)台灣建立國家級(Centralized)法醫機關確為最符國情,群眾人口分布, 土地及交通範圍,在各地檢署法醫室的"離型"下,建立以法醫研究所為 主導的法醫解剖相關偵查制度及法醫人事一條鞭的體制,確為全世界難得 的國家級法醫制度。
- (三)建立台灣北、中、南、東區法醫解剖中心隸屬法醫研究所的運作機制,並可掌握國家級毒物、血清分子生物學、病理鑑驗之水準及高效率監督、指導的鑑定機制。
- (四)我國的法醫鑑識水準有高於美國的趨勢,應漸次建立在國內法醫病理專科 醫師訓練的機能,並能吸引國際人士前往本國接受法醫病理訓練。

二、法醫刑事鑑識與人才訓練方面

- (一) DNA 鑑識科技,一日千里,必須就電腦科技之應用,LIMS 連接各工作站及檢驗儀器之應用,使得 DNA 檢驗電腦化,以符合世界發展趨勢。
- (二) 法醫科學鑑識實驗室認證更為未來之重點工作。法醫科學鑑識實驗室認證 內涵包括標準作業流程、各項實驗檢驗項目檢驗流程、盲績效及準確度評 估、結果回評(information feedback)等,均為未來發展趨勢。
- (三)本所現有專業人員不足,嚴重影響研究發展腳步,連帶造成法醫鑑識工作無法深入,進而影響到鑑識品質,實令人憂慮。因此,專業人員之進用及訓練是非常迫切之事。
- (四)美國及歐洲等先進國家重視人權之程度值得我們借鏡,就法醫刑事專業分工、人才培訓與進用、相驗解剖率達百分之四十等項,實為我們急起直追與學習之重點。
- (五)增列經費,讓法醫人員能參加國際法醫刑事學會,讓國內鑑識專家有機會 接觸世界級的鑑識專家,增加揣模學習機會,提昇法醫刑事鑑識技術。
- (六)發表論文是展現實力的最佳機會,應鼓勵本所同仁多從事研究工作,並以 參加國際會議發表其成果為績效指標,如此可提昇本所實驗室在國際上的 地位。
- (七)持續舉辦國際性法醫鑑識科學研討會,可促進國際學術交流、增進與同領域內學者專家之情誼、建立日後聯繫的管道,使我國法醫鑑識工作邁向國際化,拓展科技視野,建立國際宏觀。
- (八)比較世界各國法醫制度及硬體設施,反觀我國地區性法醫硬體設施之貧乏與不足,建立法醫專用解剖室及法醫實驗室以提昇我國死因鑑定品質應視為我國法務政策上急待解決之問題。
- (九) 世界各國實驗室標準作業流程與實驗室認證為未來的趨勢,值得我們規劃 為未來重點工作。

三、舉辦國際型法醫研討會提昇我國法醫鑑識水準

- (一)目前全世界鑑識科學年會有許多種類,較重大者包含三年一度之世界刑事 科學年會(2005 年於香港舉行)、三年一度之歐洲刑事科學年會(2003 年於 土耳其舉行)、一年一度之美國刑事科學年會(2004 年於美國德州舉行)等, 依目前排定之期程,於 2004 年下半年並無重大之相關會議,法務部調查 局似已報部核准業舉辦國際會議,如有計畫於 2004 年度辦理國際會議頗 為適合。惟宜提出具有明確意義之主題及特色,方能有號召力吸引傑世界 傑出之學者前來與會,擴大會議之宣傳效果。提早聯絡調查局。
- (二)為求本部 2004 年籌辦之國際會議能盡善盡美,宜及早成立聯繫小組,蒐集法醫刑事資料並建立法醫主題及聯繫管道(宜適時建立專屬網站)。待開會期程較接近時,建議法醫同仁參與籌備委員會,規劃詳細分工及會議細節。

四、健全國內法醫實務功能

(一)成立「重大案件處理小組」。

在全國重大案件發生時,常引起社會爭議事件,檢察官主導辦案時常需要各方面專業人才、專家學者參與,提供專業資訊、擬建議。法務部於檢察司台灣高等法院檢察署之下宜設立「全國重大案件處理小組」與法醫中心及「全國鑑識科學實驗室研究中心」互相配合,且妥善應用全國各鑑識科學實驗室之專門科技人才對重大案件提供檢察官辦案之科學鑑識功能,如大型災難之發生、船難、航空器墜落之鑑定、地質、建築結構之鑑定,重大刑案之發生,均可經由「全國重大案件處理小組」之成員、委員、顧問群們來獲得解決。

預期結果:「全國重大案件處理小組」可與「全國鑑識科學實驗室研究中心」 互相配合。運用全國各鑑識科學實驗室之專門科技人才對重大案件提供鑑識協助。

(二)成立「鑑識科學實驗室評議委員會」

依據法醫中心提報「建全法醫實務能十年計畫」中應成立「鑑識科學實驗室 評議委員會」以審查各評鑑單位準確度、品質管制及押運過程。

預期結果:「全國鑑識科學實驗室研究中心」之設立,用以整合全國鑑識科學實驗室,包括調查局科技中心、高檢署法醫中心、警政署刑事警察局法醫室、(中央警官學校)及各醫學中心及大學院校之專門人才,吸收精髓而後發展特有專責法醫檢鑑機構,除了一般死因鑑定,關於毒物、生物及藥物化學之檢驗,犯罪證物之檢驗鑑定,法醫鑑識科學上疑難驗鑑之解釋,及上述鑑識科學相關之研究發展及關於法醫人員之培訓,司法官、調查員、憲警人員實際法醫鑑識實務之訓練工作甚至於成立「全國鑑識科學實驗室研究中心」加強鑑識功能的屬於法醫研究中心之職掌功能。

(三)完成法醫相關法令規章(法醫師法之立法)

觀之美國各州之法律均規定凡非自然死,非預期之死亡及他殺案件均屬於法醫鑑定案件,唯我國現行的法醫師對死亡者的管轄權並未經由法律明文規定之,無法充份發揮法醫專業之技能,而只能成為被動配合之單位。雖然我國民風保守,但為了維護死亡者及家屬權益,適當之病理解剖以探究死因仍為正常法律途徑。以下可在通過組織法修正後對地檢署法醫人員具督導之權責後,在本所諮詢委員會下設立以下功能性機構及配合法醫師法之執行細則近行之:

1、 法醫師審議委員會:主任法醫師,法醫師之任命、職掌。

2、 案件調查標準程序:

A:標準步驟(法醫死因鑑定)

B:人身鑑定

C: 死因調查

D:證物搜證

E: 證物保存及鑑定書製作

3、法醫相關經費來源:

A:制定合理法醫人員薪資標準

B:各區域(地檢署)法醫機構經費分配、資源調配。

C:薪資發放

D: 地檢署(郡)法醫、中央與地方分擔比例(美國州郡制度下)

E: 會計統計、生命統計。

4、地檢署(郡)法醫師之任命、評審。

5. 死亡案件之相驗解剖審查管理條款

COMBINED EXPERIENCES OF VALUEJET 592, SINGAPORE AIRLINES 006 AND CHINA AIRLINES 611 AVIATION DISASTERS Kai-Ping Shaw, M.D. Ph.D. (1) NAME Meeting Abstract Presentation # 75 2003 Martha Burt, M.D. (2) and Bruce A. Hyma, M.D. (3) (1) Director, Dept. of Forensic Pathology, Institute of Forensic Medicine, Ministry of Justice, Taipei, Taiwan (2) Associate Medical Examiner, Miami-Dade County Medical Examiner Department (3) Chief Medical Examiner, Miami-Dade County Medical Examiner Dept., Miami, FL 33136-1133 Telephone: 305-545-2459 Fax: 305-545-2439 Forensic Science, CODIS 13, Air Crash, Anthropology, Odontology

Format: Platform None

Wednesday

8:45 AM

Experiences acquired from the unique aviation disasters of ValueJet 592 (VJ-592), Singapore Airlines 006 (SQ-006) and China Airlines 611 (Cl-611) are reviewed. Mass casualty investigations of aviation disasters require flexible planning due to the uniqueness of each incident. On May 11, 1996, VJ-592 with 110 occupants crashed into the Florida Everglades due to an onboard fire shortly after taking off from Miami. The aircraft disintegrated on impact and all the occupants perished. On October 31, 2000, SQ-006 with 179 occupants (84 victims) ran onto the wrong runway and crashed before take off. On May 25, 2002, 225 occupants perished after CI-611 disintegrated in flight. VJ-592 crashed nose first at more than 461 mph into a shallow, hostile water environment, resulting in complete aircraft disintegration and complete body fragmentation. Seventy of the 110 aboard VJ-592 were identified from 4282 fragments by using physical, anthropologic and forensic odontologic methods. DNA technology was used in a minority (1.4%) of cases since the short tandem repeat (STR)polymerase chain reaction (PCR) method was not well established in 1996. SQ-006's spin impact pattern resulted in many severely burned casualties entrapped in the fuselage. CODIS 13 DNA technology combined with odontologic and anthropologic information was used for identification. Within five days, 84 burned casualties from SQ-006 were identified. CI-611 disintegrated in flight, resulting in the 225 occupants and crew being scattered over forty miles of open sea. Over the 110 days of the investigation, 131 of the 225 casualties were found and identified by DNA combined with fingerprints. Forensic DNA technology combined with odontologic and anthropologic information is a very reliable and efficient tool for severely burned or fragmented body identification. Flexible mass casualty protocols utilizing DNA technology, anthropologic and odontologic information for body identification are crucial in mass casualty management from aviation disasters.

Control of the Contro

RETROSPECTIVE STUDY OF 58 CASES OF CONGENITAL BICUSPID AORTIC VALVE ENCOUNTERED IN A FORENSIC SETTING

Kai-Ping Shaw, M.D., Ph.D.(1)

Annual

2003

NAME Meeting Abstract resentation #

31

Erik K. Mont, M.D.(2), Emma O. Lew, M.D.(3), Bruce A. Hyma, M:D.(4)

1Director, Dept. of Forensic Pathology, Institute of Forensic Medicine, Ministry of Justice, Taipei, Taiwan

2Associate, 3Deputy Chief, and 4Chief Medical Examiner, Miami-Dade County Medical Examiner Dept., Miami, FL 33136-1133

Telephone: 305-545-2459 Fax: 305-545-2439



Bicuspid Aortic Valve, Aortic Stenosis, Sudden Death

None

Format Poster

Day:

Monday

10:30 AM

Bicuspid agric valve (BAV) is a common congenital anomaly, with a reported prevalence of greater than 1% in the general population. While most BAVs function normally and cause little clinical morbidity in the young, many develop complications with age, including calcification, thrombosis, infective endocarditis (IE), aortic stenosis (AS), aortic insufficiency (AI), aortic root dilatation, and aortic dissection (AD). We reviewed the autopsy findings in 58 cases of BAV that were autopsied in a large metropolitan medical examiner office from January 1991 through February 2003. Forty-eight (48) of the decedents were male. Fifty-two (52) were white, and 6 were black. In 24 cases (Group I, 41.4%), the cause of death (COD) was directly attributable to complications of the BAV, including AS/left ventricular (LV) hypertrophy/LV dilatation (19), Al (2), IE (1), valve thrombosis with coronary ostial obstruction (1), AD (3), and rupture of a dilated aortic root (2). In 13 cases (Group II, 22.4%), BAV was contributory or potentially contributory to the COD (e.g., severe coronary atherosclerosis with concomitant BAV calcification and/or evidence of functionally significant AS). Twenty-one (21) individuals (Group III, 36.2%) died of causes unrelated to BAV, including blunt force head injuries (9), gunshot wounds (3), drug toxicity (3), acute infectious disorders (excluding IE) (2), and other natural causes unrelated to BAV (4). The mean ages of Groups I, II, and III were 55.4, 60.6, and 50.1 years, respectively, and the mean body mass indexes (BMI) were 27.1, 29.3, and 23.6 kg/m2, respectively. Among the 37 cases in which BAV caused or contributed to death (Groups | and II combined), 21 (56.8%) suffered sudden death, and an additional 13 (35.1%) were discovered deceased or unresponsive; in only 3 cases (8.1%) were there antecedent symptoms. The mean LV thickness for Groups I and II combined (1.88 cm) was significantly greater than that of Group III (1.47 cm) (p=.015). Moreover, the mean heart weights of Groups I and II (576.3g and 520.8g, respectively) were each significantly greater than Group III (419.1g) (p<.01). We conclude that, although BAV is often asymptomatic in the young, it frequently causes or contributes to sudden, unexpected death at more advanced ages. Those cases in which the COD was related to BAV had significantly greater heart weights and LV hypertrophy than those in which BAV was incidental; they also tended to have higher BMIs, suggesting a role of traditional cardiovascular risk factors in the development of AS and other complications of BAV

STATE OF MARYLAND POSTMORTEM EXAMINER'S LAW

AND REGULATIONS GOVERNING MEDICAL EXAMINER CASES



1994

THE MARYLAND POST MORTEM EXAMINERS COMMISSION

BENJAMIN F. TRUMP, M.D., CHAIRMAN Department of Pathology, University of Maryland

PETER LOWELL BEILENSON, M.D. Commissioner of Health, Baltimore City

FRED SANFILIPPO, M.D., Ph.D. Department of Pathology, Johns Hopkins University

COL LARRY W. TOLLIVER Superintendent, Maryland State Police

ROBERT EASTRIDGE
Deputy Secretary for Operations
Department of Health and Mental Hygiene

Issued by the Maryland PostMortem Examiners Commission

Health-General Article Title 5. Death

Subtitle 3 Postmortem Examiners Commission

§5-301. Definitions.

- (a) In this subtitle the following words have the meanings indicated.
- (b) "Commission" means the State Postmortem Examiners Commission.
- (c) "Medical examiner's case" means a death that a medical examiner is required by law to investigate.

§5-302. Commission established.

There is a State Postmortem Examiners Commission in the Department.

§5-303. Membership; officers.

- (a) The Commission consists of the following 5 members:
 - (1) The Baltimore City Commissioner of Health;
- (2) The head of the Pathology Department of the University of Maryland School of Medicine;
- (3) The head of the Pathology Department of Johns Hopkins University School of Medicine:
 - (4) The Superintendent of the Maryland State Police; and
 - (5) A representative of the Department, chosen by the Secretary.
- (b)(1) From among its members, the Commission shall elect a chairman and a vice chairman.
- (2) The manner of election of officers and their terms of office shall be as the Commission determines.
 - (3) The vice chairman shall act as chairman when the chairman is absent or cannot act.

§5-304. Meetings; compensation.

- (a) The Commission shall determine the times and places of its meetings.
- (b) A member of the Commission may not receive compensation.

§5-305. Staff.

- (a)(1) The Commission may employ a staff in accordance with the State budget.
 - (2) The staff shall include:
 - (i) 1 chief medical examiner:
 - (ii) 1 deputy chief medical examiner;

- (iii) 4 assistant medical examiners;
- (iv) 1 toxicologist;
- (v) 2 assistant toxicologists;
- (vi) 1 serologist;
- (vii) 4 resident medical doctors who are training in forensic pathology; and
- (viii) 1 chief traffic investigator.
- (3) The Commission may employ any physician on a contract basis for part-time services.
- (b) Each medical examiner appointed under subsection (a)(2) of this section shall be a physician with at least 2 years postgraduate training in pathology.
- (c) With the approval of the Secretary of Personnel, the Commission shall set the compensation for personnel appointed under subsection (a)(2) of this section.
- (d) The Chief Medical Examiner, Deputy Chief Medical Examiner, and assistant medical examiners shall have an office in Baltimore City.
 - (e) For the use of these medical examiners, the Commission shall:
 - (1) See that proper equipment is provided; or
- (2) Arrange for use of the laboratory and other equipment of the Department, the Baltimore City Health Department, the Maryland State Police, or the Baltimore City Police Department.
- (f) The Chief Medical Examiner, the Deputy Chief Medical Examiner, or an assistant medical examiner shall be on call at all times to perform the duties set forth in this subtitle.
- (g) The State budget shall include an appropriation to carry out this subtitle, including provisions for the fee for an authorized pathologist and the necessary expenses for transportation of a body for examination by a medical examiner or for autopsy.

§5-306. Deputy medical examiners and Forensic investigator.

- (a) This section does not apply to Baltimore City.
- (b) (1) The Commission may appoint one or more deputy medical examiners for each county.
- (2) The Commission shall appoint a deputy medical examiner for a county from a list of qualified individuals submitted to the Commission by the medical society of the county. The number of names on the list shall be at least twice the number of vacancies. However, if a county does not have a medical society or if the medical society does not submit a list of names, the Commission may appoint a deputy medical examiner for the county without a list.
- (c) Each deputy medical examiner appointed under subsection (b) of this section shall be a physician.
- (d) If necessary, a deputy medical examiner may deputize another physician in the county to act as deputy medical examiner.

- (e) Each deputy medical examiner is entitled:
- (1) For each medical examiner's case that the examiner investigates, to at least \$60 and not more than \$80, as provided in the State budget;
- (2) If the examiner is called as a witness before a grand jury or in a criminal case, to the fee that the court sets; and
 - (3) To any additional compensation that a county provides.

§5-307. Rules and regulations of Commission.

The Commission may adopt rules and regulations to carry out the provisions of this subtitle.

§5-308. Limitations of Secretary.

- (a) The power of the Secretary over plans, proposals, and projects of units in the Department
- does not include the power to disapprove or modify any decision or determination that the Commission makes under authority specifically delegated by law to the Commission.
- (b) The power of the Secretary to transfer by rule, regulation, or written directive, any staff, functions, or funds of units in the Department does not apply to any staff, function, or funds of the Commission.

§5-309. Medical examiner's cases.

- (a) Deaths to be investigated.
- (1) A medical examiner shall investigate the death of a human being if the death occurs:
 - (i) By violence;
 - (ii) By suicide;
 - (iii) By casualty;
- (iv) Suddenly, if the deceased was in apparent good health or unattended by a physician; or
 - v) In any suspicious or unusual manner.
 - (2) A medical examiner shall investigate the death of a human fetus if:
- (i) Regardless of the duration of the pregnancy, the death occurs before the complete expulsion or extraction of the fetus from the mother; and
 - (ii) The mother is not attended by a physician at or after the delivery.
- (b) If a medical examiner's case occurs, the police or sheriff immediately shall notify the medical examiner and State's Attorney for the county where the body is found and give the known facts concerning the time, place, manner, and circumstances of the death.
- (c) Immediately on notification that a medical examiner's case has occurred, the medical examiner or an investigator of the medical examiner shall go to and take

charge of the body. The medical examiner or the investigator shall investigate fully the essential facts concerning the medical cause of death and, before leaving the premises, reduce these facts and the names and addresses of witnesses to writing, which shall be filed in the medical examiner's office.

- (d) The medical examiner or the investigator shall take possession of and deliver to the State's Attorney or the State's Attorney's designee any object or article that, in the opinion of the medical examiner or the investigator, may be useful in establishing the cause of death.
- (e) (1) If the next of kin of the deceased is not present at the investigation, the police officer or sheriff at the investigation or, if a police officer or sheriff is not present, the medical examiner or the investigator shall:
 - (i) Take possession of all property of value found on the body;
 - (ii) In the report of the death, make an exact inventory of the property; and
 - (iii) Deliver the property to the appropriate sheriff or police department.
- (2) The sheriff or police department shall surrender the property to the person who is entitled to its possession or custody.

§5-310. Autopsies.

- (a) If the cause of death is established to a reasonable degree of medical certainty, the medical examiner who investigates the case shall file in the medical examiner's office a report on the cause of death within 30 days after notification of the case.
- (b) (1) If the medical examiner who investigates a medical examiner's case considers an autopsy necessary, the Chief Medical Examiner, the Deputy Chief Medical Examiner, an assistant medical examiner, or a pathologist authorized by the Chief Medical Examiner shall perform the autopsy.
- (2) If the family of the deceased objects to an autopsy on religious grounds, the autopsy may not be performed unless authorized by the Chief Medical Examiner or by the Chief Medical Examiner's designee.
- (c) (1) A medical examiner shall conduct an autopsy of any fire fighter and any sworn personnel of the State Fire Marshal's Office who dies in the line of duty or as a result of injuries sustained in the line of duty.
 - (2) The autopsy shall include:
 - (i) A toxicological analysis for toxic fumes;
 - (ii) Gross and microscopic studies of heart, lung, and any other tissue involved;
 - (iii) Appropriate studies of blood and urine; and
 - (iv) Appropriate studies of body fluids and body tissues.
- (3) If the medical examiner determines toxic fumes were the cause of death, the medical examiner shall:
 - (i) Investigate to the extent possible the source of the fumes; and
 - (ii) Prepare a written report on the specific effects of the fumes on human tissue.

- (4) The autopsy and analysis shall be sufficient to determine eligibility for benefits under the federal Public Safety Officers' Benefits Act of 1976.
- (d) (1) The individual who performs the autopsy shall prepare detailed written findings during the progress of the autopsy. These findings and the conclusions drawn from them shall be filed in the office of the medical examiner for the county where the death occurred. The original copy of the findings and conclusions shall be filed in the office of the Chief Medical Examiner.
- (2) (i) Except in a case of a finding of homicide, a person in interest as defined in Sec. 10-611(e)(3) of the State Government Article may request the medical examiner to correct findings and conclusions on the cause and manner of death recorded on a certificate of death under Sec. 10-625 of the State Government Article within 60 days after the medical examiner files those findings and conclusions.
- (ii) If the Chief Medical Examiner denies the request of a person in interest to correct findings and conclusions on the cause of death, the person in interest may appeal the denial to the Secretary, who shall refer the matter to the Office of Administrative Hearings. A contested case hearing under this paragraph shall be a hearing both on the denial and on the

establishment of the findings and conclusions on the cause of death.

- (iii) The administrative law judge shall submit findings of fact to the Secretary.
- (iv) After reviewing the findings of the administrative law judge, the Secretary, or the Secretary's designee, shall issue an order to:
 - 1. Adopt the findings of the administrative law judge; or
- 2. Reject the findings of the administrative law judge, and affirm the findings of the medical examiner.
- (v) The appellant may appeal a rejection under subparagraph (iv)2 to a circuit court of competent jurisdiction.
- (vi) If the final decision of the Secretary, or the Secretary's designee, or of a court of competent jurisdiction on appeal, establishes a different finding or conclusion on the cause or manner of death of a deceased than that recorded on the certificate of death, the medical examiner shall amend the certificate to reflect the different finding or conclusion under Sec.Sec. 4-212 and 4-214 of this article and Sec. 10-625 of the State Government Article.
- (vii) The final decision of the Secretary, or the Secretary's designee, or of a court under this paragraph may not give rise to any presumption concerning the application of any provision of or the resolution of any claim concerning a policy of insurance relating to the deceased.
- (viii) If the findings of the medical examiner are upheld by the Secretary, the appellant is responsible for the costs of the contested case hearing. Otherwise, the Department is responsible for the costs of the hearing.
- (e) The Chief Medical Examiner shall set a reasonable fee for performing an autopsy by an authorized pathologist.

§5-311. Records.

- (a) (1) The Chief Medical Examiner and, as to their respective counties, each of the deputy medical examiners shall keep complete records on each medical examiner's case.
 - (2) The records shall be indexed properly and include:
 - (i) The name, if known, of the deceased;
 - (ii) The place where the body was found;
 - (iii) The date, cause, and manner of death; and
 - (iv) All other available information about the death.
- (b) The original report of the medical examiner who investigates a medical examiner's case and the findings and conclusions of any autopsy shall be attached to the record of the medical examiner's case.
- (c) The Chief Medical Examiner or, if the Chief Medical Examiner is absent or cannot act, the Deputy Chief Medical Examiner or an assistant medical examiner, and each deputy medical examiner promptly shall deliver to the State's attorney for the county where the body was found a copy of each record that relates to a death for which the medical examiner considers further investigation advisable. A State's attorney may obtain from the office of a medical examiner a copy of any record or other information that the State's attorney considers necessary.
 - (d) (1) In this subsection, "record":
 - (i) Means the result of a view or examination of or an autopsy on a body; and
 - (ii) Does not include a statement of a witness or other individual.
- (2) A record of the office of the Chief Medical Examiner or any deputy medical examiner, if made by the medical examiner or by anyone under the medical examiner's direct supervision or control, or a certified transcript of that record, is competent evidence in any court in this State of the matters and facts contained in it.
- (e)(1) A medical examiner shall charge a reasonable fee for making insurance and other similar reports.
- (2) A deputy medical examiner may keep any fee collected by the deputy medical examiner.

§5-312. Oaths, Affidavits and Examinations.

Subject to the limitations in Sec. 5-311(c) of this subtitle, a medical examiner may administer oaths, take affidavits, and make examinations as to any matter within the medical examiner's jurisdiction.

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 35 POSTMORTEM EXAMINERS COMMISSION

Chapter 01 Medical Examiner's Cases

Authority: Health-General Article, Sec. 5-301 et seq., 10-714, 18-213; Estates and Trusts Article, Sec. 4-509 and 4-509.1; Annotated Code of Maryland

.01 Definitions.

- A. In this chapter, the following terms have the meanings indicated.
- B. Terms Defined.
 - (1) Medical Examiner.
- (a) "Medical examiner" means a Chief Medical Examiner, Deputy Medical Examiner, or Assistant Medical Examiner who is a pathologist authorized to carry out the provisions of Health-General Article, Sec. 5-301, Annotated Code of Maryland.
 - (b) "Medical examiner" also means a:
- (i) Deputy Medical Examiner who assists those examiners in Sec. B(l)(a) of this regulation, and who is appointed by the Postmortem Examiners Commission in accordance with Health-General Article, Sec. 5-306, Annotated Code of Maryland;
- (ii) Physician authorized by the State to investigate deaths defined as medical examiner's cases in Health-General Article, Sec. 5-301, Annotated Code of Maryland.
 - (2) Medical Examiner's Case.
- (a) "Medical examiner's case" means any death which is the result, wholly or in part, of a casualty or accident, homicide, poisoning, suicide, criminal abortion, rape, therapeutic misadventure, drowning, or a death of a suspicious or unusual nature, or of an apparently healthy individual, or a case which is dead on arrival at the hospital.
 - (b) "Medical examiner's case" does not mean:
- (i) A stillbirth or a neonatal death, or accident room or hospital death in which the cause of death has been established by the hospital physician and is due to disease, and free of evidence of criminal or accidental nature;
- (ii) A case which is dead on arrival at the hospital and the physician who pronounces death has been in previous attendance on the patient; or
- (iii) A death which occurs in a hospital within 24 hours of admission merely because the death occurred within 24 hours.
 - (3) "Secretary" means the Secretary of the Department of Health and Mental Hygiene.

.02 Report of Medical Examiner's Cases to the Police or Sheriff.

Whenever a physician, funeral director, or other person has knowledge of the occurrence of a death that may have been the result of violence or suicide, or may have occurred by casualty or suddenly when the person was in apparent health, or not attended by a physician, or when the death may have occurred in any suspicious or upusual manner, the physician, funeral director, or other person having this knowledge shall report it without delay to the police or sheriff who has jurisdiction in the city or county where the death occurred.

.03 Medical Examiner.

An individual dying in Maryland as a result of a homicide, poisoning, suicide, criminal abortion, rape, drowning, or dying in a suspicious or unusual manner, or a death of an apparently healthy individual or a case which is dead on arrival at the hospital shall be examined by the medical examiner in the Office of the Chief Medical Examiner in Baltimore, or in any other place as may be approved by the Chief Medical Examiner.

.04 Deaths Due to Fire.

- A. Fire Fighters and State Fire Marshal Personnel. The medical examiner shall perform an autopsy and complete toxicological examination of any fire fighter or sworn personnel of the State Fire Marshal's Office who dies in the line of duty or whose death appears to have been caused by:
 - (1) Fire;
 - (2) Toxic gases;
 - (3) Toxic fire conditions; or
 - (4) Fire-related circumstances.
- B. Other Fire-Related Deaths. If a death occurs in a fire or is related to a fire, the medical examiner shall thoroughly investigate the circumstances of the death and report the death to the Center for the Study of the Health Effects of Fire in the Office of the Chief Medical Examiner for Maryland.

.05 Completion of the Death Certificate.

- A. When the medical examiner has made a determination of the cause and manner of death, the medical examiner shall complete the death certificate.
 - B. On the death certificate the medical examiner shall enter the:
 - (1) Name of the deceased;
 - (2) Cause of death and medical certification;

- (3) Date and hour of death;
- (4) Place where death occurred; and
- (5) Place where the body was found.
- C. record the manner of death under the section of the certificate designated as the medical certification.
- D. If the cause of death has not been established with reasonable medical certainty and further investigation is being conducted, the cause of death is left pending.
- E. If the cause of death has not been established with reasonable medical certainty, and the investigation has been completed, the certificate shall be completed to reflect that the cause of death was "undetermined", and the manner of death was "undetermined".

.06 Establishing a Hospital Death as a Medical Examiner's Case.

- A. The hospital physician shall be guided by the history and other circumstances in judging whether or not a death is under the jurisdiction of the medical examiner.
- B. Cases which are not bona fide medical examiner's cases may not be made such simply because autopsy permission has been refused.
- C. Authentic medical examiner's cases may not be withheld from the medical examiner's jurisdiction and autopsied by the hospital pathologist because permission for autopsy has been obtained.

.07 Hospital Autopsy of Certain Medical Examiner's Cases.

- A. The following types of medical examiner's cases may be autopsied by the hos pital pathologists with the authorization of the Chief Medical Examiner:
 - (1) Death from acute or chronic alcoholism without manifestation of trauma;
 - (2) Death from accidental burns occurring in the home;
 - (3) Death, or sudden death, associated with a therapeutic procedure;
- (4) Death following a fracture in an elderly person and resulting from a simple fall in the home.
- B. In the cases listed in Sec. A of this regulation, permission from next-of-kin is not required since these are under the medical examiner's jurisdiction and the hospital pathologist is acting pursuant to this jurisdiction.
- C. The hospital agent shall complete the death certificate, and each death certificate shall be countersigned by the medical examiner.
- D. In non-medical examiner cases, a hospital shall require proper autopsy permission in accordance with Maryland Autopsy Law, Health-General Article, Sec. 5-501, Annotated Code of Maryland.

.08 The Hospital Agent.

A. Appointment.

- (1) Each hospital shall appoint a responsible agent, office, or individual with whom the medical examiner can communicate at any hour regarding medical examiner's cases in the hospital, after receiving notification of them from the police authority.
 - (2) Each hospital shall notify the medical examiner of the agent so appointed.
 - B. Responsibilities.
- (1) If, during routine autopsy by a hospital pathologist, evidence is encountered which indicates that the death should be under the jurisdiction of the medical examiner, the death then shall become a medical examiner's case, and the hospital agent immediately shall notify the police or sheriff, who will in turn notify the medical examiner.

Agency note: The hospital pathologist shall discontinue the autopsy pending the arrival of the medical examiner.

- (2) Notification of Police. Whenever a hospital in Maryland has a medical examiner's case, the hospital agent shall report the case to the local law enforcement agency with jurisdiction in that subdivision of the State. The local law enforcement agency so notified shall transmit the information to the Medical Examiner's investigator on duty.
- (3) Preliminary Hospital Reports. The hospital agent designated in accordance with Regulation .08 of this chapter shall submit promptly to the medical examiner information on the name and age, if known, of each medical examiner's case, with the date and time of admission; time of death; diagnosis, if made; place, date, time, and manner of accident, or violence, if any; and other relevant information, on forms to be provided by the Chief Medical Examiner, in order to allow the Chief Medical Examiner to decide the disposition of each case.
- (4) Clinical and Autopsy Reports from Hospitals. Whenever a medical examiner's case is autopsied in a hospital, the hospital agent shall submit to the medical examiner, without delay, a clinical summary report, preferably filled out by the physician most familiar with the case, and a provisional anatomical diagnosis, and later a copy of the autopsy protocol.

.09 Anesthetic Deaths.

In the case of any anesthetic death occurring in Maryland, the hospital in which the death occurred shall notify immediately, by telephone, the Chief Medical Examiner or a Deputy Chief Medical Examiner, an Assistant Medical Examiner, or the Deputy Medical Examiner of the county in which the death occurred.

.10 Entry to Storage or Autopsy Room at Office of the Chief Medical Examiner.

An individual, other than a member of the staff of the Chief Medical Examiner, may not enter the storage room or the autopsy room while work is being carried on there, except with the permission of the Chief Medical Examiner or the medical examiner performing the work.

.11 Cornea Tissue Removal.

Whenever an authorized eye bank has informed the Chief Medical Examiner or the Chief Medical Examiner's Deputy or Assistant Medical Examiner that there is need for corneal tissue for research or transplantation, the Chief Medical Examiner shall allow the authorized eye bank to make a removal if:

- A. A Certification of Need has been provided to the medical examiner;
- B. The body has been tested to determine its suitability for transplantation;
- C. An autopsy is going to be performed and the removal does not interfere with the subsequent investigation or examination; and
- D. The medical examiner does not know of an objection to the autopsy or donation of tissue by the next-of-kin.

.12 Donation of Internal Organs for Transplantation.

- A. Whenever there is an immediate need for an internal organ as a transplant, that is heart, lung, kidney, liver, pancreas, spleen, lymph nodes, or adrenal gland, a medical examiner may provide the organ, if requested by a transplant surgeon, under the following conditions:
 - (1) The medical examiner has jurisdiction over the body of a decedent;
 - (2) The body has been tested to determine its suitability;
- (3) The hospital representative and treating physician have completed a Certificate of Need for this decedent:
 - (4) The hospital and treating physician have been unable to contact the next-of-kin:
- (5) No objection by the next-of-kin is known or reasonably foreseen by the medical examiner; and
- (6) The removal of the organ requested for transplant does not interfere with an in vestigation or autopsy.
- B. Whenever a medical examiner on duty determines that an organ cannot-be removed for one of the reasons stated in Sec. A of this regulation, the transplant surgeon may request that this decision be reviewed by the Chief Medical Examiner, a Deputy Chief Medical Examiner, or their designee.
- C. Whenever a decedent is determined to have died by some violent means, the medical examiner may not authorize removal of the requested organs without direct supervision of the medical examiner or the medical examiner's agent.

10.35.01.13

.13 Administrative Review of Correction of Findings and Conclusions.

- A. Except in a case of a finding of homicide, a person in interest as defined in State government Article, Sec. 10-611(e)(3), Annotated Code of Maryland, may request the Office of the Chief Medical Examiner to correct findings and conclusions on the cause and manner of death recorded on a certificate of death under State Government Article, Sec. 10-625, within 60 days after a medical examiner files those findings and conclusions.
- B. A person in interest is defined as the spouse, adult child, parent, adult sibling, grandparent, or guardian of the person of the deceased at the time of the deceased's death.
 - C. The request to correct the findings and conclusions on a death certificate shall:
 - (1) Be in writing to the Chief Medical Examiner;
 - (2) Describe the requested change precisely; and
 - (3) State the reasons for the change.
- D. Within 60 days after receiving the request in Sec. C of this regulation, the Chief Medical Examiner shall provide the person in interest written notice of the action taken.
- E. If the Chief Medical Examiner denies the request to correct findings and conclusions on the cause of death, the person in interest may appeal the denial in writing within 15 days to the Secretary. The Secretary shall refer the matter within 15 days of receipt to the Office of Administrative Hearings.
- F. An administrative law judge shall conduct a hearing both on the denial and on the establishment of the findings and conclusions on the cause of death.
- G. Upon reviewing the findings of fact submitted by an administrative law judge, the Secretary or the Secretary's designee shall issue an order within 60 days to:
 - (1) Adopt the findings of the administrative law judge; or
- (2) Reject the findings of the administrative law judge and affirm the findings of the medical examiner.
- H. If the Secretary or Secretary's designee rejects the findings of an administrative law judge, the person in interest may appeal that rejection to a circuit court of competent jurisdiction under Maryland law.
- I. If the final decision of the Secretary or the Secretary's designee, or of a court of competent jurisdiction on appeal establishes a different finding or conclusion on the cause or manner of death of a deceased than that recorded on the certificate of death, the medical examiner shall amend the certificate to reflect the different finding or conclusion.
- J. The medical examiner shall send a change letter to the Division of Vital Records to amend the certificate of death, to reflect the final decision of the Secretary or Secretary's designee, or a court of competent jurisdiction.
- K. The final decision of the Secretary or the Secretary's designee, or of a court in an appeal under this regulation, may not give rise to any presumption concerning the

application of any provision of or the resolution of any claim concerning a policy of insurance relating to the deceased.

L. If the findings of the medical examiner are upheld by the Secretary, the appellant is responsible for the costs of the contested case hearing, based on the billing rate established by the Office of Administrative Hearings. Otherwise, the Department is responsible for the costs.

.14 Release of Medical Examiner's Records.

- A. Individual files of the Chief Medical Examiner are not public records but are private medical records protected from disclosure under the provisions of State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland.
- B. An exception to these confidential medical records is the official medical examiner's autopsy report. This report is a public record and is generally subject to disclosure under State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, unless the case is subject to an ongoing investigation, or other appropriate reason for denial of disclosure exists.
- C. A reasonable administrative fee of \$10 for families and \$40 for private institutions may be charged for providing requested certified and prepared medical examiner's reports.
- D. An individual, other than the custodian of the records of the Office of the Chief Medical Examiner or a designee, may not copy or distribute a copy of the official report of the Office of the Chief Medical Examiner.

.15 Communicable Disease.

If, during the investigation of a death under the jurisdiction of the Office of the Chief Medical Examiner, a communicable disease is identified, it shall be reported by the medical examiner in writing within 24 hours to the health officer in the appropriate jurisdiction and to the deputy State health official, on the forms supplied by the Department of Health and Mental Hygiene, in accordance with COMAR 10.06.01.04.

16 Child Abuse or Neglect, or Both.

A death that is investigated by the Office of the Chief Medical Examiner that is found to be caused by or related to child abuse or neglect shall be reported by a medical examiner orally and in writing to local departments of social services and the local law enforcement agency of the subdivision in which the child last resided, in accordance with Family Law Article, Sec. 5-704, Annotated Code of Maryland.

.17 Notification of Exposure to Contagious or Infectious Disease.

Whenever it is required that the Office of the Chief Medical Examiner notify a firefighter, emergency medical technician, rescue squad member, law enforcement officer, correctional officer, etc. of exposure to contagious disease or virus, and pursuant to Health-General Article, Sec. 18-213, Annotated Code of Maryland, the following procedures shall be followed:

- A. A medical examiner shall review information gathered in the course of the postmor tem examination, including testing for contagious disease or viruses;
- B. If evidence of contagious disease or virus, as defined in Health-General Article, Sec. 18-213, Annotated Code of Maryland, is identified in the test carried out in the postmortem examination, this information shall be provided by the Office of the Chief Medical Examiner to the officially designated agency representative of the appropriate firefighter, emergency medical technician, rescue squad member, law enforcement officer, correctional officer, etc., with a copy to each of these.
- C. The Office of the Chief Medical Examiner shall verbally notify the agency-designated representative within 48 hours after confirmation of the diagnosis, and subsequently confirm that notice, in writing, and in a manner that protects the confidentiality of the patient; and
- D. The agency representative shall notify the individual believed to have been exposed to the contagious disease or virus.

.18 Deaths in a State-Funded or State-Operated Facility.

- A. Deaths in a State-funded or State-operated facility which constitute a medical examiner's case, as defined in Health-General Article, Sec. 5-309, Annotated Code of Maryland, shall be investigated by the Office of the Chief Medical Examiner.
- B. Notification and Investigation. The sheriff, police, or chief law enforcement officer, in the jurisdiction where a death occurs, shall notify the medical examiner whenever a death that constitutes a medical examiner's case occurs in a State-funded or State-operated facility. If the death may have occurred by violence, by suicide, by casualty, suddenly when the person was in apparently good health, not attended by a physician, or in any suspicious or unusual manner, the medical examiner or investigator shall:
 - (1) Respond directly to the administrative head of the facility;
 - (2) Conduct an investigation;
 - (3) Complete the investigation report; and
- (4) Arrange to have the body sent to the Office of the Chief Medical Examiner for an autopsy, if necessary.
 - C. Completion of Investigation Report.
- (1) A medical examiner or investigator shall document in an investigation report all of the information regarding the death that was:

- (a) Gathered in the course of the investigation; and
- (b) Provided by the administrative head of the facility to the sheriff, police, chief law enforcement official, or health officer in the jurisdiction where the death occurred.
- (2) A medical examiner or investigator shall append to an investigation report the written report of the death that the administrative head of the facility provided to the sheriff, police, chief law enforcement official, or health officer in the jurisdiction where the death occurred.
- (3) Required Contents of Report. The report of the administrative head of a facility where the death occurred shall contain all the information set out in Health-General Article, Sec. 10-714, Annotated Code of Maryland. The report:
- (a) May be oral, if followed by a written report within 5 working days from the date of the death, or written; and
 - (b) Shall contain the following relevant information:
 - (i) The name, age, and sex of the deceased,
 - (ii) The time of discovery of the death,
 - (iii) The deceased's place of residence at the time of death,
- (iv) If the death occurred in a place other than the residence of the deceased, the location of the body at the time of discovery,
 - (v) The place where the body was found,
 - (vi) The name of the person who took custody of the body,
 - (vii) The name of the person evaluating the death, if known,
 - (viii) Whether an autopsy is being performed, if known,
- (ix) The name, address, and telephone number of the next-of-kin or legal guardian, if known, and
- (x) Other information the administrative head of the facility determines should be provided to the medical examiner.
- (4) The report of the investigation by the Office of the Chief Medical Examiner constitutes an individual file of the Chief Medical Examiner not subject to disclosure under State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland.

.19 Deputy Medical Examiners/Forensic Investigators.

- A. The Postmortem Examiners Commission shall appoint one or more deputy medical examiners and forensic investigators for each county.
- B. The Postmortem Examiners Commission shall appoint a deputy medical examiner from a list of qualified individuals submitted by the county medical society. However, the Commission may appoint a deputy medical examiner for the county without a list if there is no county medical society or if the medical society does not submit a list of names.
- C. Each deputy medical examiner appointed shall be a physician. If necessary, a deputy medical examiner may deputize another physician in the county to act as deputy medical examiner.

- D. The Chief Medical Examiner shall select a forensic investigator from a list provided by the Deputy Chief Medical Examiner for Statewide services.
- E. For each medical examiner's case investigated, the examiner is entitled to a fee of not less than \$60 and not more than \$80, as provided in the State budget. In counties with forensic investigators, the investigator receives \$55 for each medical examiner's case investigated and the deputy medical examiner is entitled to \$25 for certifying the death and completing the death certificate. If the Deputy Medical Examiner, or forensic investigator as the Examiner's designee, is called as a witness before a grand jury or in a criminal case, the Examiner or investigator is entitled to:
 - (1) The fee that the court sets; and
 - (2) Any additional compensation that a county provides.

.20 Body Transportation Reimbursement.

- A. The Deputy Medical Examiner or forensic investigator shall arrange for body transortation services of human remains from a scene of death in Maryland to a specified location within Maryland.
- B. The Deputy Medical Examiner or forensic investigator shall contact local county funeral directors or appropriate body transportation service providers within their jurisdiction, on a rotational basis, to arrange for body transportation services.
- C. Funeral directors and body transportation service providers are eligible to transport human remains for the Office of the Chief Medical Examiner. However, it is the responsibility of each local funeral director or body transportation service to notify the Deputy Medical Examiner or forensic investigator if they are interested in providing this service for the State.
- D. Providers of body transportation services shall be available 24 hours a day, 7 days per week, 365 days per year to provide body transportation services, as needed, and shall provide their own equipment to transport human remains.
- E. Human remains shall be accorded the proper dignity expected under accepted mortuary standards and practices, and shall be handled in accordance with universal precautions as defined in "Control of Communicable Diseases in Man," which is incorporated by reference in COMAR 10.06.01.01, as well as the Office of the Chief Medical Examiner guidelines to protect remains and evidence. F. Payment.
- (1) Providers of body transportation services shall be paid \$1.50 per mile, one way or a minimum charge of \$45, plus any tolls, whichever rate is higher, as provided in the State budget, from the scene of death to a designated location.
- (2) The provider is responsible for completing the Office of the Chief Medical Examiner's Transportation of Bodies Report for payment.
- (3) The Office of the Chief Medical Examiner is responsible for providing a replacement body pouch when the body is transported to that office.

Administrative History

Effective date: July13, 1939 Amended December 22, 1950; February 27, 1951; May 15, 1951; June 26, 1951; January 15, 1963; October 22, 1963.-----Chapter revised effective August 2, 1993 (20:15 Md. R. 1220)