



HARRIS COUNTY
INSTITUTE OF FORENSIC SCIENCES
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Luis A. Sanchez, M.D.
Executive Director &
Chief Medical Examiner

AUTOPSY REPORT

Case No. ML19-0330

January 30, 2019

ON THE BODY OF

Dennis Wayne Tuttle

CAUSE OF DEATH: Multiple gunshot wounds

MANNER OF DEATH: Homicide

DATE OF DEATH: January 28, 2019

A handwritten signature in blue ink, appearing to be "MB", written over a horizontal dashed line.

03/12/19

Marianne E. Beynon, M.D.
Forensic Pathology Fellow

MMDDYY

Reviewed by:

A handwritten signature in black ink, appearing to be "DW", written over a horizontal dashed line.

03/13/19

Dwayne A. Wolf, M.D., Ph.D.
Deputy Chief Medical Examiner

MMDDYY

Reviewed by:

A handwritten signature in black ink, appearing to be "MA", written over a horizontal dashed line.

3-19-19

Mary L. Anzalone, M.D.
Assistant Medical Examiner

MMDDYY

POSTMORTEM EXAMINATION ON THE BODY OF

Dennis Wayne Tuttle

HISTORY: The decedent, a 59-year-old white male, sustained multiple gunshot wounds during the serving of a narcotic search warrant at his residence, and was declared deceased at the scene at 5:15 p.m. on January 28, 2019. Positive identification was confirmed by fingerprint comparison. See companion case ML19-0331.

AUTOPSY: The autopsy is performed at the Harris County Institute of Forensic Sciences by Forensic Pathology Fellow, Marianne E. Beynon, M.D., under the supervision of Deputy Chief Medical Examiner Dwayne A. Wolf, M.D., Ph.D., pursuant to Article 49.25, Texas Code of Criminal Procedure, beginning at 2:00 p.m. on January 29, 2019, and continuing through January 30, 2019. The autopsy was attended by Houston Police Department Homicide Division Special Investigations Unit Detective R. Lujan.

EXTERNAL APPEARANCE:

CLOTHING: When first viewed, the decedent is clad in a black sweatshirt, a gray long-sleeved shirt, gray sweatpants, white brief-style underwear, soiled white socks, and a black and blue left knee brace. The sweatshirt, long-sleeved shirt, and pants are bloodstained. An off-white elastic bandage is wrapped around the right wrist and hand, fastened by a white metal safety pin at the anterolateral right wrist. The clothing has defects corresponding to the gunshot wounds; see EVIDENCE OF INJURY. The hands are bagged. A black watch encircles the left wrist. A white metal ring is on the left third finger. Fragments of white metal necklace accompany the decedent. Harris County morgue identification bands encircle the right wrist and left ankle. A Harris County morgue tracking device encircles the right ankle.

The body is that of a normally developed, thin, white male who weighs 112 pounds, is 67 inches in length (body mass index 17.5 kilograms per square meter), and appears compatible with the reported age of 59 years. The body is cold, subsequent to refrigeration. Rigor mortis is fully developed and symmetrical. Fixed, patchy, pink-purple lividity is on the right abdomen and anterior thighs. Partially fixed, purple lividity is on the posterior surfaces of the body except in areas exposed to pressure. The skin of the lower abdomen is discolored green.

The scalp hair is graying blonde, frontally receding, and measures up to 5 inches in length. Facial hair consists of a graying brown mustache and stubble on the chin. The irides are blue. The corneas are clear. The sclerae are white. The conjunctivae are without petechial hemorrhage. The external auditory canals and external nares are free of foreign material and abnormal secretions. The nasal septum is palpably intact. The teeth are natural and in poor condition, with many absent mandibular and maxillary teeth.

The neck is symmetrical. The chest is symmetrical. The abdomen is scaphoid. The back is symmetrical. The external genitalia are those of a normal adult male. The upper and lower extremities are well developed and symmetrical. Multiple, scattered 1/4 to 3/8 inch red-purple senile ecchymoses are on the posterior right forearm and dorsal right hand.

IDENTIFYING MARKS AND SCARS: Multiple, 1/8 to 2-1/2 inch non-specific scars are on the posterior left forearm and dorsal left hand. Multiple, 1/8 to 1/4 inch non-specific scars are on the posterior right arm. Multiple, 1/4 to 1 inch non-specific scars are on the posterior right forearm and dorsal right hand. A 3/4 inch vertical, linear scar is on the anterior right leg.

EVIDENCE OF MEDICAL INTERVENTION: None.

EVIDENCE OF INJURY:

MULTIPLE GUNSHOT WOUNDS:

A. GUNSHOT WOUND OF THE HEAD AND NECK:

ENTRANCE: On the right posterior neck, located 7-1/4 inches below the top of the head, 2-3/4 inches to the right of the posterior midline, as measured circumferentially, and 1-1/4 inches inferior and 1-1/4 inches posterior to the right external auditory meatus, is an entrance gunshot wound consisting of a 1/4 inch circular defect surrounded by a concentric, circumferential, 1/8 inch wide, pink marginal abrasion. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissues of the right posterior neck, the right posterior neck musculature, the right lateral portion of the fifth cervical vertebra, the mandible, the oral cavity, the right common carotid artery, the right internal jugular vein, the right anterior neck musculature, and the subcutaneous soft tissue and skin of the left chin and right anterior neck at the jawline. The wound track is hemorrhagic and disrupted. The mandible has multiple fractures. The cervical spinal cord has no gross hemorrhage or contusions. Subarachnoid hemorrhage is at the base of the brain. The right upper lip has a 1/4 inch laceration. The left upper lip has a 1/8 inch laceration. Multiple 1/16 to 1/8 inch abrasions are on the upper lip. The lower lip is contused, with multiple abrasions and lacerations. The teeth are fragmented. The tongue is lacerated and has hemorrhage in the musculature. The hyoid bone and left superior horn of the thyroid cartilage are fractured.

EXIT: The wound track is associated with two separate exit wounds: one on the left chin and one on the right anterior neck at the jawline.

On the left chin, located 7 inches below the top of the head, 3/4 inch to the left of the anterior midline, and 1/2 inch inferior and 1 inch medial to the left oral commissure, is an exit gunshot wound consisting of a 1 by 3/4 inch stellate defect with circumferential, less than 1/16 inch wide, red marginal abrasion.

On the right anterior neck at the jawline, located 7-1/4 inches below the top of the head, 2-1/4 inches to the right of the anterior midline, and 2 inches inferior and 1 inch lateral to the right oral commissure, is an exit gunshot wound consisting of a 1-1/2 by 1/4 inch irregular, curved defect with torn edges and an eccentric, up to 1/16 inch, red-purple marginal abrasion at the 12-6 o'clock positions. Multiple, 1/8 to 1/4 inch linear and curvilinear bullet fragment exit defects with pink-purple, abraded edges are on the skin surrounding the wound. The exit wound defects are surrounded by purple ecchymosis.

RECOVERY: Multiple yellow metal bullet jacket fragments and grey metal bullet core fragments are recovered from the wound track in the head and neck. Multiple portions of black fabric are recovered from the wound track.

CLOTHING: No clothing defects are associated with this gunshot wound.

DIRECTION: The bullet passes from back to front and right to left, with no significant vertical deviation.

B. GUNSHOT WOUND OF THE LEFT SHOULDER:

ENTRANCE: On the left anterior shoulder, located 11 inches below the top of the head, 4 inches to the left of the anterior midline, and 6-1/4 inches superior and 5/8 inch lateral to the left nipple, is an entrance gunshot wound consisting of a 5/8 by 1/2 inch ovoid defect surrounded by an irregular, eccentric, circumferential, pink-red marginal abrasion, which measures up to 1/4 inch at the 12 and 6 o'clock positions. The marginal abrasion is focally dry and dark purple at the 6 o'clock position. A 1-1/2 by 1/2 inch pink-red abrasion is on the skin adjacent to the 9 to 12 o'clock wound margins. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissue of the left upper chest, the left pectoralis major, the left clavicle, the left trapezius muscle, and the subcutaneous soft tissue and skin of the left upper back. The wound track is hemorrhagic and disrupted. The left subclavian artery has multiple minute intimal lacerations.

EXIT: On the left upper back, located 8-1/2 inches below the top of the head, 1-3/4 inches to the left of the posterior midline, and in line with the left shoulder, is an exit gunshot wound consisting of a 1/4 inch circular defect surrounded by an eccentric, circumferential, pink-red marginal abrasion, which measures up to 1/4 inch at the 10 o'clock position. Multiple, up to 5/16 inch radial tears extend from the 3 to 6 o'clock wound margins. A 1-1/2 by 1/8 inch curvilinear, pink-red abrasion is on the skin of the neck superior to the exit wound defect, with vague striated patterning.

RECOVERY: Two minute grey metal bullet core fragments are recovered from the wound track in the left shoulder.

CLOTHING: The left anterior panel of the sweatshirt and long-sleeved shirt have defects corresponding to the entrance wound. Yellow gunpowder particles are on the fabric of

the sweatshirt around the defect. No clothing defects are associated with the exit wound.

DIRECTION: The bullet passes from front to back, left to right, and slightly upward.

CONSULTATION: The left clavicle is retained for anthropology examination; see attached ANTHROPOLOGY REPORT for details.

C. GUNSHOT WOUND OF THE CHEST: This gunshot wound may represent a re-entrance wound of a fragmented bullet associated with one of the gunshot wounds of the upper extremities (Gunshot wound of the left forearm [GSW F], Gunshot wound of the left hand [GSW G], or Gunshot wound of the right wrist [GSW H]), or it may represent a separate, individual atypical gunshot wound due to the bullet striking an intermediary target then fragmenting prior to entering the body.

ENTRANCE: Two bullet fragment entrance wound defects are on the medial chest, with surrounding ragged abrasions.

The larger entrance wound, located 14 inches below the top of the head, 1 inch to the right of the anterior midline, and 3-1/2 inches medial and 2-1/4 inches superior to the right nipple, consists of a 1 by 3/4 inch ovoid defect surrounded by an eccentric, circumferential, red-purple marginal abrasion, which measures up to 1/4 inch at the 8 to 9 o'clock positions. A 2 by 1-3/4 inch torn, irregular, red abrasion extends from the 3 to 6 o'clock wound margins, and has multiple areas of grey-black staining.

The smaller entrance wound, located 13-1/4 inches below the top of the head, 1 inch to the right of the anterior midline, and 3-1/2 inches medial and 3 inches superior to the right nipple, consists of a 1/4 inch circular defect surrounded by an eccentric, circumferential, pink-red marginal abrasion, which measures up to 3/8 inch at the 6 o'clock position. The marginal abrasions of these wounds are contiguous.

The skin surrounding both entrance wound defects has multiple, 1/8 to 1/2 inch linear and circular, red, dry abrasions. The entrance wounds are surrounded by a 5 by 4-1/2 inch ill-defined, green ecchymosis. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wounds.

PATH AND ASSOCIATED INJURIES: The bullet fragments perforate the skin and subcutaneous soft tissue of the medial chest, and the right pectoralis major and minor, and penetrate the medial right clavicle. The wound track is hemorrhagic and disrupted. Right anterior ribs 2-3 are fractured.

EXIT: None.

RECOVERY: A deformed portion of grey metal bullet core is recovered from the medial right clavicle. Multiple small grey metal bullet core fragments are recovered from the wound track in the medial chest.

CLOTHING: The medial anterior panel of the sweatshirt and long-sleeved shirt have multiple ragged defects corresponding to this cluster of fragment entrance wounds. Yellow gunpowder particles are on the fabric of the sweatshirt around the defect.

DIRECTION: The bullet fragments pass from left to right, upward, and front to back.

D. GUNSHOT WOUNDS OF THE LEFT BUTTOCK:

ENTRANCE: Two gunshot entrance wounds are on the left buttock.

The upper entrance wound, located 35-1/4 inches below the top of the head and 2-1/4 inches to the left of the posterior midline, consists of a 3/16 inch circular defect surrounded by a concentric, circumferential, 1/8 inch, brown marginal abrasion. The wound defect is surrounded by a 1 inch area of green skin discoloration. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

The lower entrance wound, located 36-1/4 inches below the top of the head and 2-1/4 inches to the left of the posterior midline, consists of a 3/4 by 5/16 inch ovoid defect surrounded by a concentric, circumferential, 1/8 inch wide, brown marginal abrasion. Multiple, up to 1/8 inch microtears extend from the wound margin. The wound defect is surrounded by a 1 inch area of green skin discoloration. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The two gunshot wounds have overlapping wound paths which cannot be definitively attributed to either entrance wound. The bullets

perforate the skin, subcutaneous soft tissue, and musculature of the left buttock, the left pelvis, the right internal iliac artery, and the right iliac wing and sacroiliac joint. One bullet continues into the peritoneal cavity, where it penetrates the cecum and surrounding mesocolon. The other bullet penetrates the musculature of the right back, inferior and posterior to the right twelfth rib. The wound tracks are hemorrhagic and disrupted. Blood and stool coat the serosal surfaces of the peritoneal cavity, and blood is pooled in the pelvic cavity.

EXIT: None.

RECOVERY: Two bullets are recovered associated with the wound tracks. One deformed, yellow metal jacketed, grey metal bullet, and multiple grey metal bullet core fragments are recovered from the cecum. One deformed, yellow metal jacketed, grey metal bullet, and a yellow metal jacket fragment are recovered from the right back musculature, inferior and posterior to the right twelfth rib. The right back recovery site is subjacent to a 1-1/2 inch area of subcutaneous hemorrhage.

CLOTHING: The left posterior panel of the sweatpants and underwear have defects corresponding to the entrance wounds. Yellow gunpowder particles are on the fabric of the sweatpants around the defects.

DIRECTION: Both bullets pass from back to front, upward, and left to right.

E. GUNSHOT WOUND OF THE POSTERIOR LEFT THIGH:

ENTRANCE: On the posterior left thigh, located 38-1/2 inches below the top of the head and 1-1/4 inches medial to the posterior midline of the left thigh, is an entrance gunshot wound consisting of a 1/8 inch circular defect surrounded by a concentric, circumferential, 1/16 inch, brown marginal abrasion. The wound defect is surrounded by a 1-1/4 inch area of green skin discoloration. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissue of the posterior left thigh, the musculature of the posterior left thigh and left buttock, and the left pelvis, and enters the peritoneal cavity where it perforates the mesentery and comes to rest in the right peritoneal cavity. The wound track is

hemorrhagic and disrupted. Blood and stool coat the serosal surfaces of the peritoneal cavity, and blood is pooled in the pelvic cavity.

EXIT: None.

RECOVERY: A deformed, yellow metal jacketed, grey metal bullet is recovered from the right peritoneal cavity.

CLOTHING: The left posterior panel of the sweatpants has a defect corresponding to the entrance wound. Yellow gunpowder particles are on the fabric of the sweatpants around the defect.

DIRECTION: The bullet passes from back to front, sharply upward, and left to right.

F. GUNSHOT WOUND OF THE LEFT FOREARM:

ENTRANCE: On the posterior left forearm, located 26-3/8 inches below the top of the head, 17-3/8 inches below the top of the shoulder, and 1/8 inch medial to the posterior midline of the left forearm, is an entrance gunshot wound consisting of a 1/8 by 3/16 inch ovoid defect surrounded by a concentric, circumferential, 1/16 inch wide, pink-red marginal abrasion. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissue of the posterior left forearm, the extensor and flexor muscles of the left forearm, the left radius and ulna, and the subcutaneous soft tissue and skin of the anterior left forearm. The wound track is hemorrhagic and disrupted. Two vertical areas of skin splitting are on the skin between the entrance and exit wound defects: a 4 by 2 inch elliptical defect on the lateral left forearm, and a 2-1/2 by 1 inch elliptical defect on the medial left forearm.

EXIT: On the anterior left forearm, located 23-1/2 inches below the top of the head, 14-1/2 inches below the top of the shoulder, and 1-3/4 inches lateral to the anterior midline of the arm, is an exit gunshot wound consisting of a 3-1/4 by 2 inch gaping, stellate defect.

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RECOVERY: Two grey metal bullet core fragments are recovered from the wound track in the left forearm.

CLOTHING: The left arm of the sweatshirt and long-sleeved shirt have defects corresponding to the entrance and exit wounds. No residues are identified on the material surrounding the defects.

DIRECTION: The bullet passes from back to front, upward, and slightly right to left.

G. GUNSHOT WOUND OF THE LEFT HAND:

WOUND: On the medial left hand, located 32 inches below the top of the head, 23 inches below the top of the shoulder, and at the medial midline of the left hand, is a tangential gunshot wound consisting of a 2-1/2 by 2 inch irregular, stellate defect with undulating, scalloped wound margins. No definitive marginal abrasion is identified. A 1 inch laceration is on the lateral palmar left hand adjacent to the wound defect. The wound is surrounded by a 2 by 2 inch green ecchymosis. No stippling or unburned gunpowder particles are on the skin surrounding the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissue of the medial left hand, the left third through fifth metacarpals, and the left ulnar artery. The wound track is hemorrhagic and disrupted.

RECOVERY: No bullet fragments are recovered.

CLOTHING: No clothing defects are associated with the wound.

DIRECTION: Due to the fragmented, irregular nature of this wound and lack of orienting features, the direction of the bullet cannot be determined.

CONSULTATION: The left third through fifth metacarpals are retained for anthropology examination; see attached ANTHROPOLOGY REPORT for details.

H. GUNSHOT WOUND OF THE RIGHT WRIST:

Two atypical gunshot wounds are on the right lateral wrist, which cannot be classified as entrance or exit wounds on the basis of wound characteristics alone. It is determined that the anterolateral right wrist wound is the entrance wound because a portion of the safety pin which fastened the bandage around the right wrist and hand, located adjacent to the anterolateral wrist wound, was recovered from within the wound track. This suggests that the bullet struck the safety pin prior to entering the body, and carried a portion of the safety pin into the wound track.

ENTRANCE: On the anterolateral right wrist, located 31-1/2 inches below the top of the head, 22-1/2 inches below the top of the shoulder, and 5/8 inch lateral to the anterior midline of the right wrist, is an atypical gunshot wound consisting of a 1-3/4 by 1/4 inch curvilinear defect with multiple, up to 1/8 inch tears. A focal ill-defined, up to 1/16 inch, red marginal abrasion is at the 3 to 4 o'clock positions. Two, 1/4 to 3/8 inch vertical lacerations are on the skin lateral to the wound.

PATH AND ASSOCIATED INJURIES: The bullet perforates the skin and subcutaneous soft tissue of the lateral right wrist, the distal right radius, three right carpal bones (scaphoid, lunate, and triquetral), and the right radial artery.

EXIT: On the posterolateral right wrist, located 31-1/4 inches below the top of the head, 22-1/4 inches below the top of the shoulder, and 3/8 inch lateral to the posterior midline of the right wrist, is a gunshot wound consisting of a 2-1/4 by 1-1/2 inch gaping, irregular, stellate defect with torn edges. Multiple, 1/4 inch to 1-3/4 by 1 inch red abrasions are on the skin lateral to the wound. No marginal abrasion is identified. The wound is surrounded by purple ecchymosis. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wounds.

RECOVERY: Multiple yellow metal jacket fragments and grey metal bullet core fragments are recovered from the wound track in the right wrist. A sharp straight metal foreign object, consistent with a portion of the safety pin that fastened the elastic bandage, is also recovered from the wound track.

CLOTHING: The elastic bandage and the right arm of the sweatshirt have defects corresponding to the wounds. The safety pin that fastened the elastic bandage is broken. No residues are identified on the material surrounding the defects.

DIRECTION: The bullet passes from front to back, slightly upward, and slightly right to left.

CONSULTATION: The distal right radius and three right carpal bones (scaphoid, lunate, and triquetral) are retained for anthropology examination; see attached ANTHROPOLOGY REPORT for details.

I. GRAZE WOUNDS OF THE RIGHT FOREARM: On the posterior right forearm, located 23-1/4 inches below the top of the head, 14-1/4 inches below the top of the shoulder, and 1-1/8 inches medial to the posterior midline of the right forearm, is a gunshot graze wound consisting of two adjacent 1/2 by 1/4 inch and 2-3/4 by 1/2 inch oblong, purple-red abrasions. No soot, stippling or unburned gunpowder particles are on the skin surrounding the wounds.

CLOTHING: The right arm of the sweatshirt and long-sleeved shirt have defects corresponding to the graze wounds, as follows: three, circular to ovoid defects forming a line that extends parallel to the sleeve of the sweatshirt, and two, circular to oblong defects forming a line that extends parallel to the sleeve of the long-sleeved shirt. No residues are identified on the material surrounding the defects.

J. ADDITIONAL FIREARM FINDING: A 1/2 inch area of sparse, punctate, grey-black residue is on the lateral proximal interphalangeal joint of the left second (index) finger. This may represent soot deposition; however, it is not clearly associated with any specific gunshot wound described above.

BLUNT FORCE INJURIES:

BLUNT FORCE INJURIES OF THE HEAD AND NECK: Two, 1/8 inch linear, red abrasions are on the left preauricular skin and left ear tragus. Two, 1/8 inch red, abraded lacerations are on the left earlobe.

A 3/4 inch purple contusion with horizontal linear patterning is on the right lateral neck. Two, 3/4 by 1/4 inch and 1 by 1/2 inch purple-red contusions with horizontal linear patterning are on the left lateral neck. A 1/2 by 1/2 inch ovoid, red contusion is at the junction of the right neck and right upper chest. A 1-3/4 inch dry, tan-brown, abraded laceration, which is interrupted at the posterior aspect, is at the junction of the left neck and left shoulder.

BLUNT FORCE INJURY OF THE TORSO: A 3/4 inch dry, orange abrasion is on the left upper quadrant of the abdomen.

BLUNT FORCE INJURIES OF THE EXTREMITIES: A 1/16 inch curvilinear, contused laceration is on the right hypothenar eminence. A series of purple contusions with abrasions are distributed along the palmar aspect of the right fifth (small) finger over a 2 by 1/2 inch area. A 1/4 inch faint, purple contusion is on the lateral right thumb. A 1/4 inch ovoid, red abrasion is on the posterior left arm.

A 3/4 inch brown, scabbed, interrupted abrasion is on the proximal anterior right thigh. Multiple, 1/8 inch ovoid, blue-purple contusions are on the distal anterior right thigh. Two punctate, scabbed, red abrasions are on the anterior right leg.

The injuries above, having been described once, will not be repeated.

INTERNAL EXAMINATION:

BODY CAVITIES: See EVIDENCE OF INJURY. No adhesions are in any of the body cavities. Within the peritoneal cavity is bloody dark brown stool, which contains numerous scattered minute, white spheres (consistent with pill material from the gastrointestinal tract; see below). The pleural and pericardial spaces have no fluid collections. All internal organs are in their normal anatomic positions. The serous surfaces, where intact, are smooth and glistening. The body cavities demonstrate mild early putrefactive changes including dusky discoloration of the small and large intestines and liver.

HEAD: See EVIDENCE OF INJURY. The subscalp tissues are without hemorrhage. The calvaria has a 2 centimeter well-healed, circular bone flap, with two white metal surgical screws, consistent with remote craniotomy procedure. The dura mater and falx cerebri

are intact. There is no epidural or subdural hemorrhage. The brain weighs 1170 grams and has a normal shape. The leptomeninges are thin and translucent. The cerebral hemispheres are symmetrical. The cranial nerves and blood vessels at the base of the brain are intact. The cerebral cortical ribbon is well demarcated from the white matter. The deep nuclei and ventricles, cerebellum, brainstem, and proximal cervical spinal cord have the standard configuration.

NECK: See EVIDENCE OF INJURY. The cricoid cartilage is intact. The laryngeal mucosa is tan and glistening. The atlanto-occipital articulation is stable.

CARDIOVASCULAR SYSTEM: The heart weighs 250 grams and has a smooth, glistening epicardial surface with a small amount of epicardial fat. The coronary artery system has patent ostia and a right dominant distribution. Yellow, eccentric atherosclerotic plaques produce stenoses of up to 20 percent of the left anterior descending and right coronary arteries. The left circumflex coronary artery has no significant atherosclerosis. The myocardium is red-brown, without pallor, softening, or fibrosis. The atrial and ventricular septa are intact. The chambers of the heart are not dilated. The wall thickness of the left ventricle is 1.0 centimeter, the right ventricle 0.3 centimeter, and the interventricular septum 1.0 centimeter. The endocardial surfaces are smooth and without hemorrhage. The four cardiac valves are thin, freely mobile, and measure as follows: tricuspid valve 12 centimeters, pulmonic valve 7.5 centimeters, mitral valve 10.5 centimeters, and aortic valve 8 centimeters. The aorta and its major branches arise normally and follow their usual distribution, with moderate calcific atherosclerosis. The venae cavae and their major tributaries return to the heart in their usual distribution and are free of thrombi.

RESPIRATORY SYSTEM: The 510 gram right lung and 470 gram left lung have normal lobation. The pleural surfaces are smooth and glistening, with marked anthracotic pigment deposition. The parenchyma has patchy geographic hemorrhage, consistent with hemoaspiration, without masses or consolidation. The lungs have severe emphysematous changes, with bullae at the periphery of the upper lobes. The bronchi are unremarkable. The pulmonary arterial vasculature is without thromboemboli or significant atherosclerosis.

HEPATOBIILIARY SYSTEM: The 950 gram liver has a smooth, glistening, intact capsule covering dark red-brown, softened parenchyma with no focal lesions and no visible or

palpable fibrosis. The gallbladder contains 35 milliliters of green-brown, mucoid bile without stones. The mucosa is velvety and unremarkable. The extrahepatic biliary tree is patent, without evidence of calculi.

ALIMENTARY SYSTEM: The esophagus is lined by gray-white, smooth mucosa. The gastric mucosa exhibits slightly flattened rugal folds and the lumen contains 40 milliliters of thin brown liquid with no alcoholic aromatic odor or intact pills. The small intestine, colon, and appendix have no non-traumatic abnormalities. The pancreas has a pink-tan lobulated appearance and the ducts are clear. The gastrointestinal tract, from the esophagus to the sigmoid colon, contains numerous minute, white spheres, and three white, round pills are recovered from the small and large intestine.

GENITOURINARY SYSTEM: See EVIDENCE OF INJURY. The right and left kidneys weigh 90 and 70 grams, respectively. The renal capsules are smooth, thin, and semi-transparent. The underlying cortical surfaces are coarsely granular and pale tan to pink. The lower pole of the left kidney has a 3 centimeter simple cortical cyst. The cortices are sharply delineated from the medullary pyramids, which are pink-red and unremarkable. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains no urine. The testes, prostate gland, and seminal vesicles have no nontraumatic abnormalities.

RETICULOENDOTHELIAL SYSTEM: The 70 gram spleen has a smooth, intact capsule covering dark red-purple, moderately firm parenchyma. The white pulp is unremarkable. The regional lymph nodes are not enlarged.

ENDOCRINE SYSTEM: The thyroid gland has a normal shape and size with uniform red-brown, rubbery parenchyma. The parathyroid glands are inconspicuous. The adrenal cortices are golden-yellow and uniformly thin, while the medullae are thin and gray. The pituitary gland is unremarkable.

MUSCULOSKELETAL SYSTEM: See EVIDENCE OF INJURY. The sternum is without fracture or developmental anomaly. The musculature is normally distributed. The diaphragm is intact.

RADIOGRAPHS: Anteroposterior and lateral view show numerous projectiles and projectile fragments in the head, neck, chest, abdomen, pelvis, and bilateral upper extremities.

TOXICOLOGY: Blood, vitreous fluid, bile, stomach contents, liver, brain, stool, and pills from the gastrointestinal tract are submitted.

EVIDENCE: Clothing, gunshot residue stubs, fingernails scrapings and clippings kit, DNA bloodstain card, fabric and bullet fragments recovered from the head and neck, bullet fragments recovered from the chest, bullet fragments recovered from the left shoulder, bullet recovered from the cecum, bullet recovered from the right peritoneum, bullet recovered from the right back, bullet fragments recovered from the left arm, and bullet fragments recovered from the right wrist are submitted.

CONSULTATION: The left clavicle, left third through fifth metacarpals, distal right radius, and three right carpal bones (scaphoid, lunate, triquetral) are retained for anthropology examination; see attached ANTHROPOLOGY REPORT for details.

HISTOLOGY: The following sections are submitted: Cassette A – Heart; Cassette B – Lungs; Cassette C – Liver and kidney; Cassette D – Brain; Cassette E – Cervical spinal cord

PATHOLOGICAL FINDINGS

I. Multiple gunshot wounds

A. Gunshot wound of the head and neck:

1. Entrance: Right posterior neck, with no soot or stippling
2. Path and associated injuries:
 - a. Perforates right posterior neck musculature, right lateral fifth cervical vertebra, mandible, oral cavity, right common carotid artery, right internal jugular vein, right anterior neck musculature, and left chin and right anterior neck at the jawline
 - b. Mandibular fractures; subarachnoid hemorrhage around the base of the brain; lip contusions, abrasions, and lacerations; teeth fragmentation; tongue laceration; hyoid bone and thyroid cartilage fractures
3. Exit: Left chin; right anterior neck at the jawline

4. Recovery: Yellow metal jacket fragments, grey metal bullet core fragments, and black fabric fragments from head and neck
 5. Clothing: No defects
 6. Direction: Back to front and right to left
- B. Gunshot wound of the left shoulder:
1. Entrance: Left anterior shoulder, with no soot or stippling
 2. Path and associated injuries:
 - a. Perforates left pectoralis major, left clavicle, left trapezius, and left upper back
 - b. Left clavicle fractures; left subclavian artery lacerations
 3. Exit: Left upper back
 - a. Abrasion, with patterning consistent with necklace
 4. Recovery: Grey metal bullet core fragments from left shoulder
 5. Clothing: Defects corresponding to entrance wound, with gunpowder particles on fabric
 6. Direction: Front to back, left to right, and slightly upward
- C. Gunshot wound of the chest:
1. Entrance: Medial chest, with no soot or stippling
 2. Path and associated injuries:
 - a. Perforates right pectoralis major and minor, and penetrates left clavicle
 - b. Right ribs 2-3 fractures
 3. Exit: None
 4. Recovery: Grey metal bullet core fragments from medial right clavicle and medial chest
 5. Clothing: Defects corresponding to entrance wounds, with gunpowder particles on fabric
 6. Direction: Left to right, upward, and front to back
 - a. Left clavicle defect with beveling consistent with direction; see ANTHROPOLOGY REPORT for details
- D. Gunshot wounds of the left buttock:
1. Entrance: Two (2) gunshot wounds, left buttock, with no soot or stippling
 2. Path and associated injuries:
 - a. Perforate left buttock musculature, left pelvis, right internal iliac artery, right iliac wing and sacroiliac joint, and peritoneal cavity, and penetrate cecum and surrounding mesocolon, and right lower back musculature

- b. Pelvic fractures; hemoperitoneum; bowel perforation with stool in peritoneal cavity
- 3. Exit: None
- 4. Recovery:
 - a. Deformed, yellow metal jacketed, grey metal bullet, and grey metal bullet core fragments from cecum
 - b. Deformed, yellow metal jacketed, grey metal bullet, and yellow metal jacket fragment from right lower back musculature
- 5. Clothing: Defects corresponding to entrance wounds, with gunpowder particles on fabric
- 6. Direction: Back to front, upward, and left to right
- E. Gunshot wound of the posterior left thigh:
 - 1. Entrance: Posterior left thigh, with no soot or stippling
 - 2. Path and associated injuries:
 - a. Perforates posterior left thigh musculature, left buttock, left pelvis, mesentery, and penetrates right peritoneal cavity
 - b. Hemoperitoneum; bowel perforation with stool in peritoneal cavity
 - 3. Exit: None
 - 4. Recovery: Deformed, yellow metal jacketed, grey metal bullet from right peritoneal cavity
 - 5. Clothing: Defect corresponding to entrance wound, with gunpowder particles on fabric
 - 6. Direction: Back to front, sharply upward, and left to right
- F. Gunshot wound of the left forearm:
 - 1. Entrance: Posterior left forearm, with no soot or stippling
 - 2. Path and associated injuries:
 - a. Perforates extensor and flexor muscles of left forearm, and left radius and ulna
 - b. Left radius and ulna fractures; skin splitting
 - 3. Exit: Anterior left forearm
 - 4. Recovery: Grey metal bullet core fragments from left forearm
 - 5. Clothing: Defect corresponding to entrance and exit wounds, with no residues
 - 6. Direction: Back to front, upward, and slightly right to left

G. Gunshot wound of the left hand:

1. Tangential wound of medial left hand
2. Path and associated injuries:
 - a. Perforates medial left hand, left third through fifth metacarpals, and left ulnar artery
3. Recovery: None
4. Clothing: No defects
5. Direction: Indeterminate
 - a. Retained bones inconclusive for directionality; see ANTHROPOLOGY REPORT for details

H. Gunshot wound of the right wrist:

1. Entrance: Anterolateral right wrist, with no soot or stippling
2. Path and associated injuries:
 - a. Perforates lateral right wrist, distal right radius, three right carpal bones (scaphoid, lunate, and triquetral), and right radial artery
3. Exit: Posterolateral right wrist
4. Recovery:
 - a. Yellow metal jacket fragments and grey metal bullet core fragments from right wrist
 - b. Safety pin fragment from the wound track
5. Clothing: Defects corresponding to wounds, with no residues
6. Direction: Front to back, slightly upward, and slightly right to left
 - a. Retained bones inconclusive for directionality; see ANTHROPOLOGY REPORT for additional details

I. Graze wounds of the right forearm

1. Clothing: Defects corresponding to wounds, with no residues

J. Additional firearm finding

1. Punctate soot deposits, left second (index) finger

II. Minor blunt force injuries

- A. Abrasions and lacerations of the left preauricular skin and left ear
- B. Contusions and abraded lacerations of the neck, with patterning consistent with necklace
- C. Abrasion of left upper quadrant of abdomen
- D. Contusions, abrasions, and laceration of extremities

Dennis Wayne Tuttle

ML19-0330

-20-

III. Additional pathological findings

- A. Hypertensive and atherosclerotic cardiovascular disease
 - 1. Mild coronary artery atherosclerosis
 - 2. Moderate aortic atherosclerosis
 - 3. Nephroarterio- and arteriolosclerosis
- B. Severe pulmonary anthracosis and emphysema, with focal polarizable foreign material
- C. Remote, well-healed right frontal craniotomy

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES
1861 OLD SPANISH TRAIL
HOUSTON, TEXAS 77054

Marianne E. Beynon, M.D.
Forensic Pathology Fellow

ML19-0330

MICROSCOPIC EXAMINATION

5 H&E-stained slides are reviewed.

HEART - Mild myocyte hypertrophy; focal increased interstitial and perivascular fibrosis

LUNG - Airspace enlargement with alveolar septal destruction; patchy interstitial fibrosis; mucous cell hyperplasia with bronchial expansion by mucous and sloughed epithelial cells; moderate peribronchial and subpleural anthracotic pigment deposition; intra-alveolar pigment-laden macrophages; intra-alveolar hemorrhage; focal polarizable foreign material

LIVER - Vascular congestion

KIDNEY - Scattered sclerotic glomeruli with moderate arterio- and arteriolosclerosis

BRAIN - Arteriolosclerosis

CERVICAL SPINAL CORD - No significant pathologic change; no subarachnoid or intraparenchymal hemorrhage



Marianne E. Beynon, M.D.
Forensic Pathology Fellow

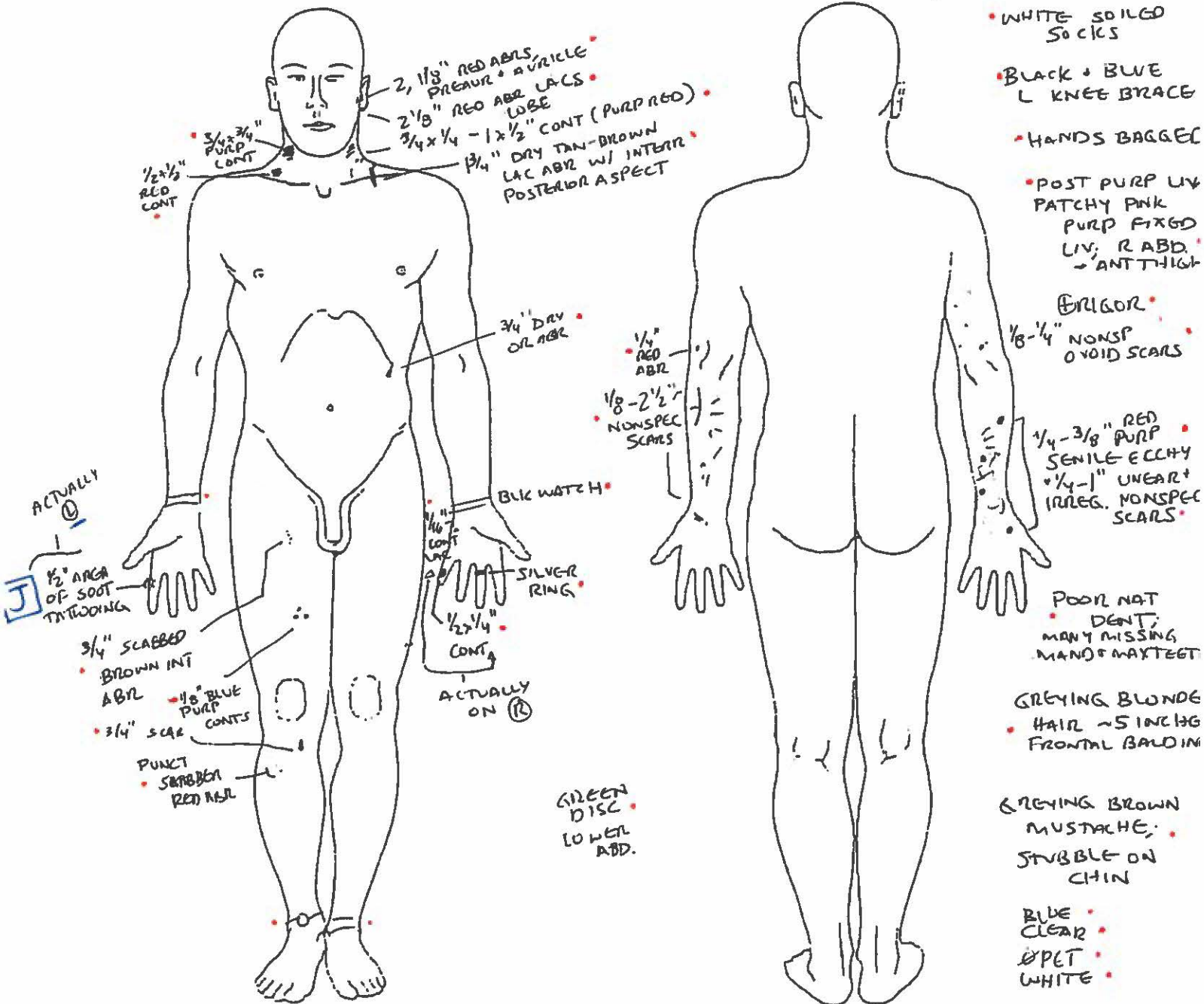
03/12/19

MMDDYY



Harris County Institute of Forensic Sciences

Case Number: ML19-0330	Page: 1 of 5
Decedent's Name: DENNIS TUTTLE	Length: 67 Weight: 112
Examiner: BEYNON/ WOLF	Date: 1/29/19 Time: 2:00 PM



Section: Pathology

Form Title: Autopsy Diagram - Adult Male, Front/ Back

Rev.:

Authorized by: DA Wolf

Form No.: PAT.001

Rev. date: 11/5/13

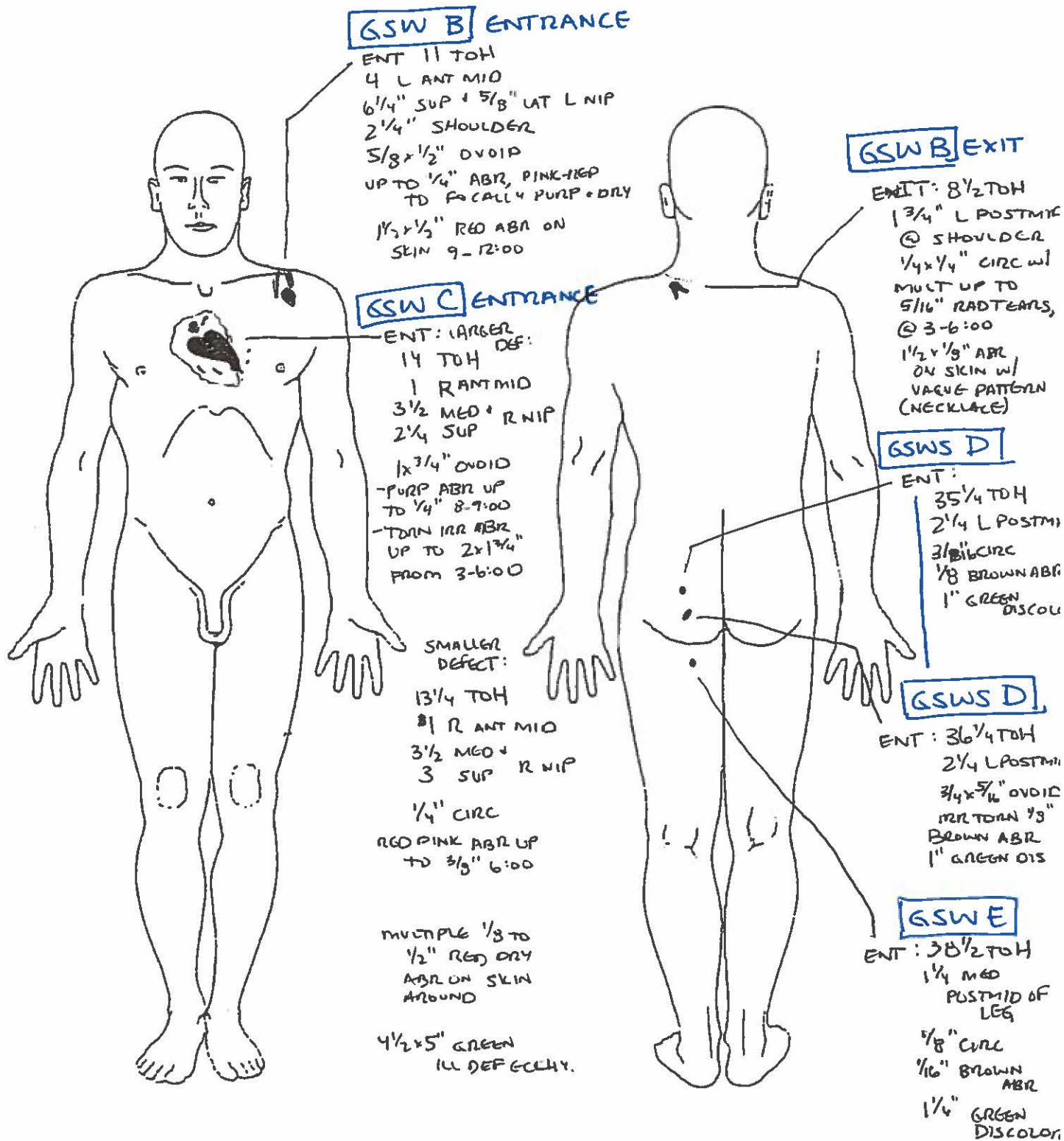
MEB



Harris County Institute of Forensic Sciences

Case Number: ML19-0330		Page: 2 of 5
Decedent's Name: DENNIS TUTTLE	Length: 67	Weight: 112
Examiner: BEYNON/ WOLF	Date: 11/29/19	Time: 2:00 pm

ENT:



Section: Pathology

Form Title: Autopsy Diagram - Adult Male, Front/ Back

Rev.:

Authorized by: DA Wolf

Form No.: PAT.001

Rev. date: 11/5/13

DEB



Harris County Institute of Forensic Sciences

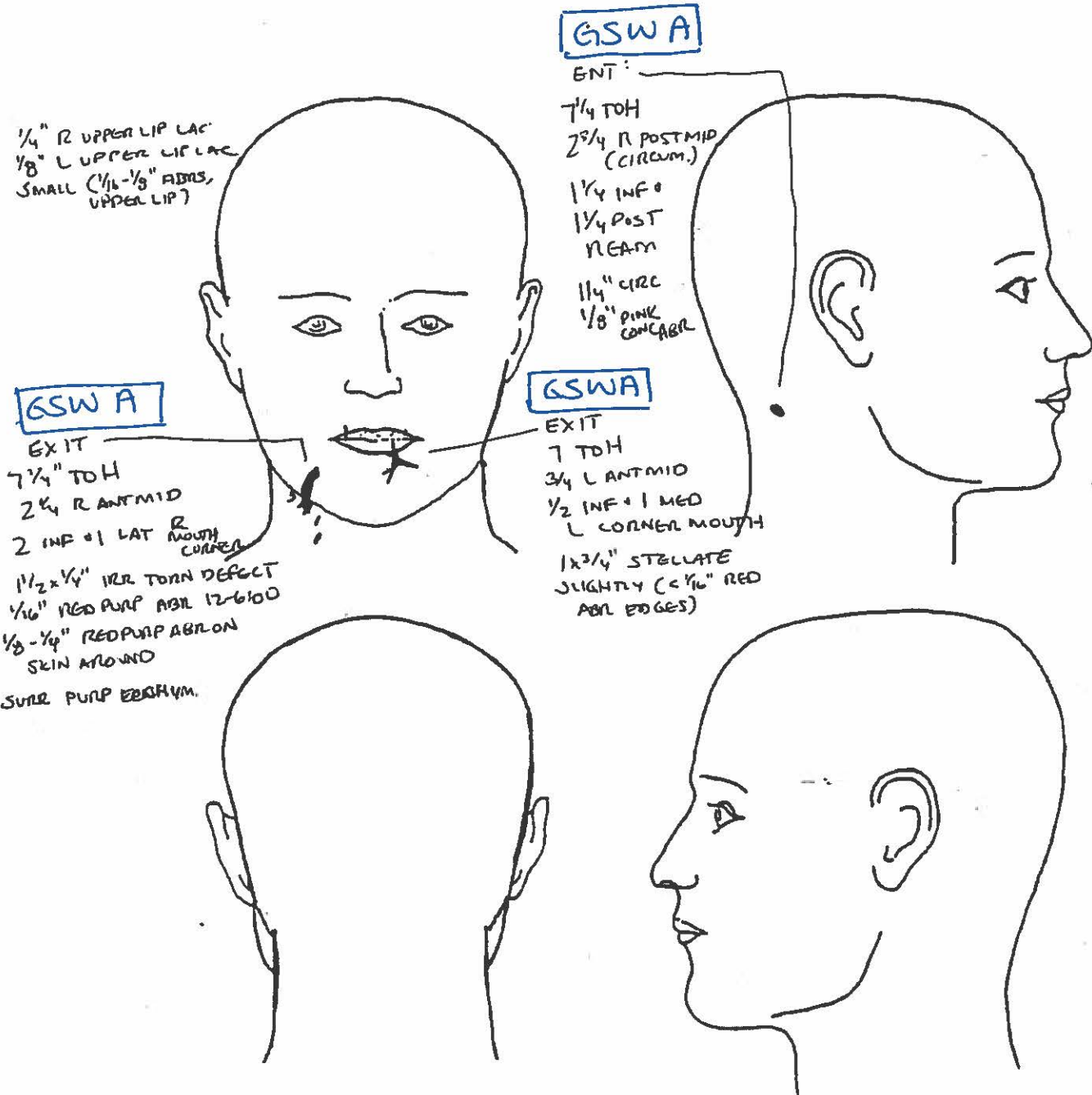
Case Number: **ML19-0330**

Decedent's Name: **DENNIS TUTTLE**

Examiner: **BEYNONI WOLF**

Date: **1/29/19**

Page: **3** of **5**



Section: Pathology

Form Title: Autopsy Diagram - Head, A-P & lateral

Rev.:

Authorized by: DA Wolf

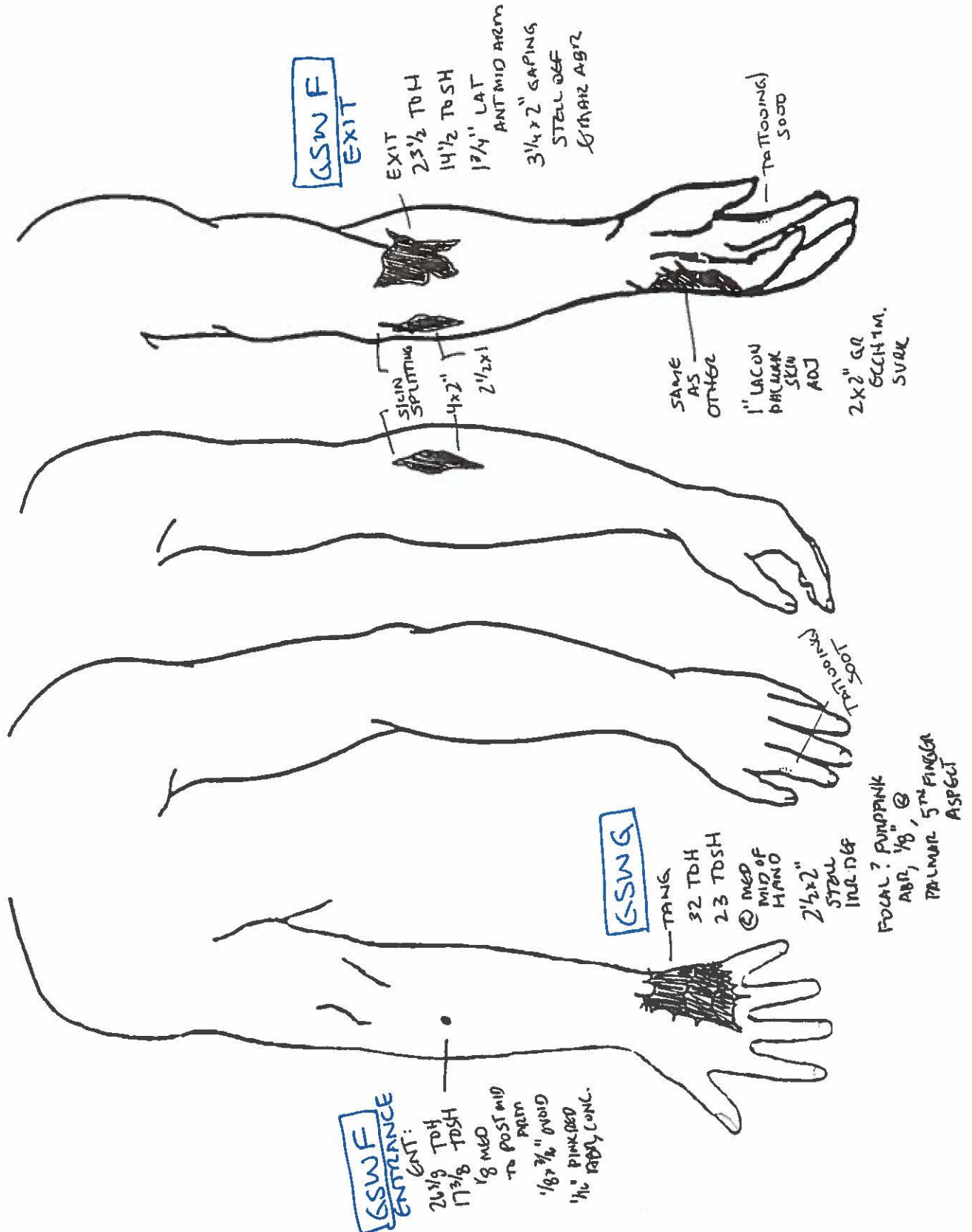
Form No.: PAT.005

Rev. date: 11/5/13

MEB



Harris County Institute of Forensic Sciences			
Case Number: ML19-0330	Decedent's Name: DENNIS TUTTLE		
Examiner: BEYNON/WOLF	Date: 1/29/19	Page 4 of 5	





Harris County Institute of Forensic Sciences

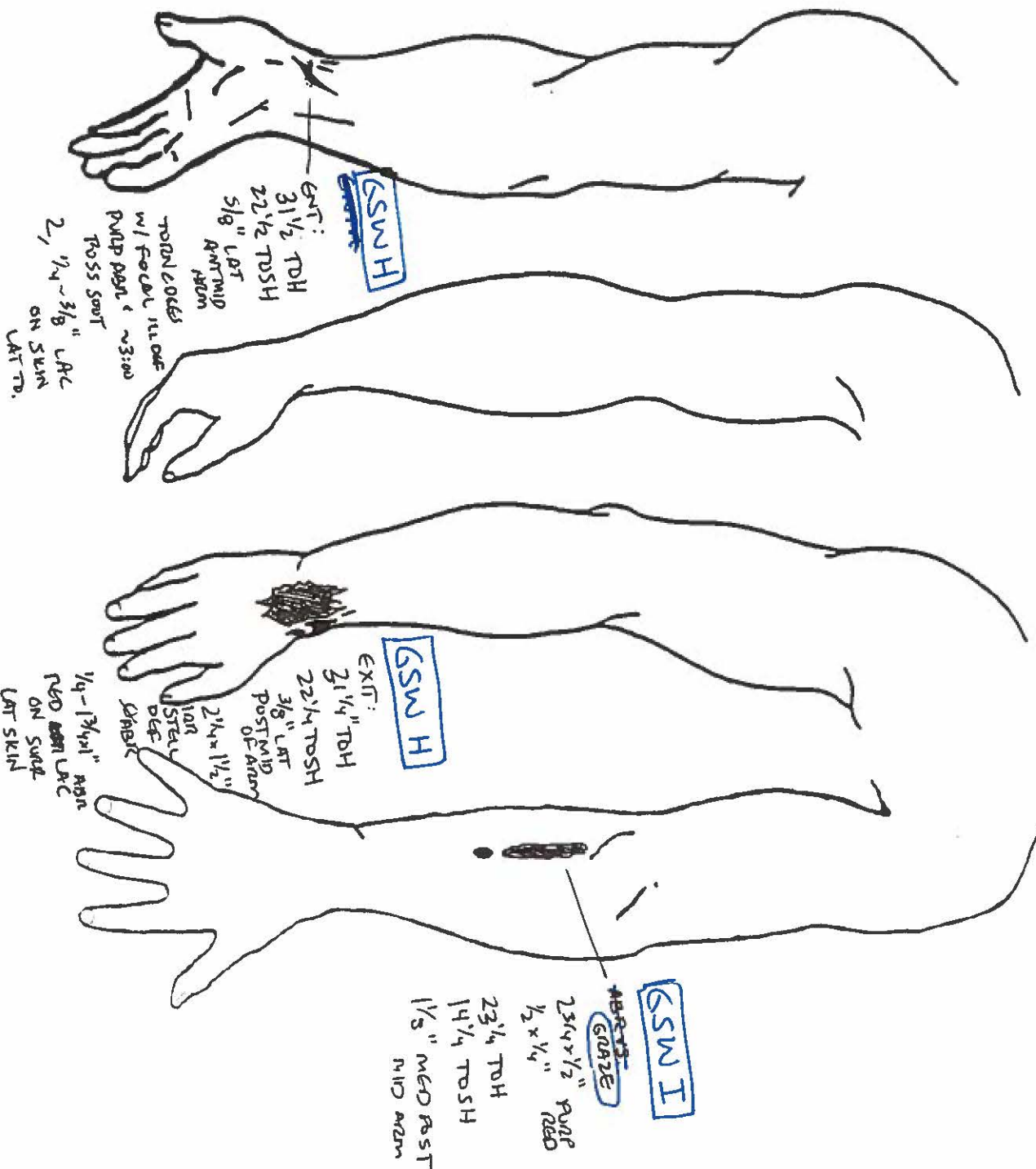
Case Number: **ML19-0330**

Decedent's Name: **DENNIS TUTTLE**

Examiner: **BEYNON / WOLF**

Date: **1/29/19**

Page: **35 of 5**



Section: Pathology

Form Title: Autopsy Diagram - Right arm, all views

Rev.:

Authorized by: DA Wolf

Form No.: PAT 008

Rev. date: 11/5/13

MEB

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES

1861 Old Spanish Trail

Houston, TX 77054-2001

Phone: 832-927-5005 FAX: 832-927-2876

TOXICOLOGY REPORT

March 01, 2019

LABORATORY NUMBER: ML19-0330

SERVICE REQUEST: 0001

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Deceased: DENNIS WAYNE TUTTLE

Submitted By:

Submission Date: January 30, 2019

Marianne Beynon, M.D.
Forensic Pathology Fellow
Harris County Institute of Forensic Sciences
1861 Old Spanish Trail
Houston, TX 77054

RESULTS:

001 - Blood (femoral)

<u>Analyte</u>	<u>Result</u>	<u>Analytical Method</u>	<u>Analyst</u>
Delta-9-tetrahydrocannabinol	Present	GC/MS/MS	J. Sailors
Norcarboxytetrahydrocannabinol	Present	GC/MS/MS	J. Sailors

001 - Blood (femoral)

<u>Analyte</u>	<u>Result</u>	<u>Analytical Method</u>	<u>Analyst</u>
Acetone	None Detected	Headspace GC/FID	A. DeWalt
Ethanol	None Detected	Headspace GC/FID	A. DeWalt
Isopropanol	None Detected	Headspace GC/FID	A. DeWalt
Methanol	None Detected	Headspace GC/FID	A. DeWalt

002 - Blood (heart)

<u>Analyte</u>	<u>Result</u>	<u>Analytical Method</u>	<u>Analyst</u>
Amphetamine / MDA	None Detected	Immunoassay - ELISA	F. Chavez
Benzodiazepines	None Detected	Immunoassay - ELISA	F. Chavez
Carisoprodol	None Detected	Immunoassay - ELISA	F. Chavez
Fentanyl	None Detected	Immunoassay - ELISA	F. Chavez
Methadone	None Detected	Immunoassay - ELISA	F. Chavez
Opiates	None Detected	Immunoassay - ELISA	F. Chavez
Oxycodone	None Detected	Immunoassay - ELISA	F. Chavez
Phencyclidine	None Detected	Immunoassay - ELISA	F. Chavez
Benzoylcegonine	None Detected	Immunoassay - ELISA	F. Chavez
Methamphetamine / MDMA	None Detected	Immunoassay - ELISA	F. Chavez

Only those items listed in the results section were tested.

Medical Examiner's Initials and Date MEB 3/4/19

All testing is accredited by the Texas Forensic Science Commission and by the laboratory's ISO/IEC 17025 and American Board of Forensic Toxicology accreditation issued by the ANSI National Accreditation Board.

Refer to certificate and scope of accreditation FT-0076.

We welcome your feedback at <http://ifs.harriscountytexas.gov/Pages/CrimeLaboratoryService.aspx>

Page 1 of 2

HCIFSToxAll v01222019

gmm

LABORATORY NUMBER: ML19-0330
SERVICE REQUEST: 0001

DATE: March 1, 2019

Evidence Disposition: All items will be retained by the laboratory for at least one year following the issuance of an original Toxicology Report.

INSTITUTE OF FORENSIC SCIENCES

MAR 01 2019

RECEIVED
RECORDS CUSTODIAN

KE



Linda Alvarado, BS, C(ASCP), D-ABFT-FT
Case Reviewer
Toxicologist II Specialist
March 01, 2019



Jeanna Mapeli, M.S., D-ABFT-FT
Expert Reviewer
Toxicologist I
March 01, 2019

Medical Examiner's Initials and Date MEB 3/4/19

All testing is accredited by the Texas Forensic Science Commission and by the laboratory's ISO/IEC 17025 and American Board of Forensic Toxicology accreditation issued by the ANSI National Accreditation Board.

Refer to certificate and scope of accreditation FT-0076.

We welcome your feedback at <http://ifs.harriscountytexas.gov/Pages/CrimeLaboratoryService.aspx>

Page 2 of 2

HCIFSToxAll v01222019



HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES
1861 OLD SPANISH TRAIL
HOUSTON, TEXAS 77054

Julie M. Fleischman, Ph.D.
Forensic Anthropologist

ML19-0330

REPORT OF ANTHROPOLOGY CONSULTATION

CASE NUMBER:	ML19-0330
NAME:	DENNIS WAYNE TUTTLE
PATHOLOGIST:	Marianne E. Beynon, MD; Dwayne A. Wolf, MD, PhD
ANALYSIS COMPLETED:	February 18, 2019

On January 30, 2019, Dr. Beynon, Forensic Pathology Fellow, under the supervision of Dr. Wolf, Deputy Chief Medical Examiner, requested a ballistic trauma analysis of the left clavicle, left hand, and right wrist from ML19-0330, a 59 year-old male. Specifically, Dr. Beynon requested the assessment of wound path directionality. The left clavicle, left metacarpals 3-5 (MC3-5), the distal portion of the right radius, and three right carpals (scaphoid, lunate, and triquetral) were removed post-autopsy and transferred to the Forensic Anthropology Laboratory for chemical processing. The specimens were reconstructed using cyanoacrylate adhesive, examined grossly, and photographed. The specimens will be archived in the Forensic Anthropology Evidence Storage Room.

Findings

The left clavicle has a comminuted ballistic defect approximately at the midshaft. A void is present on the inferior surface with numerous fractures radiating from the void in a starburst pattern. The infero-lateral margin of the bone surrounding the void is externally beveled while the infero-medial margin is internally beveled. There is minimal plastic deformation, although one non-displaced fragment on the inferior surface adjacent to the void is deformed infero-laterally.

The bones of the left palm, specifically MC3-5, are highly comminuted. The third metacarpal has a complete fracture inferior to the head. The fourth and fifth metacarpals are highly comminuted. Only the proximal end of MC5 is present. The reconstruction of MC4-5 could not be completed due to large areas of missing bone and/or the small size of the recovered bone fragments.

The distal end of the right radius is highly comminuted. The reconstruction could not be completed due to large areas of missing bone and/or the small size of the recovered bone fragments. The right scaphoid, lunate, and triquetral have comminuted and radiating fractures with small regions of missing bone.

The fracture margins on all of the retained specimens are sharp and show no gross evidence of healing.


Interpretation

The beveling on the margins of the left clavicle defect and the deformed fragment are consistent with a projectile passing through the bone from anterior to posterior along the inferior margin of the clavicle. When the clavicle is oriented in anatomical position, the location of the void suggests a slightly tangential (i.e., inferior to superior) wound path through the bone.

The high levels of comminution, the large regions of missing bone, and the lack of characteristic ballistic defects on the left metacarpals, the right radius, and the right carpals preclude interpretation regarding the mechanism of injury and/or projectile directionality. The sharp fracture margins with no evidence of an osseous healing response indicates that these injuries occurred at or around the time of death.

Summary

The left clavicle of ML19-0330 has one ballistic injury that occurred at or around the time of death. The external beveling on the infero-lateral margin of the void, and the internal beveling on the infero-medial margin of the void, as well as the plastic deformation are consistent with a projectile traveling from anterior to posterior, possibly tangentially through the inferior aspect of the left clavicle. The high level of comminution and missing bone on the left metacarpals, the right radius, and the right carpals preclude an interpretation of injury mechanism or directionality.


Julie M. Fleischman, Ph.D.
Forensic Anthropologist

03/04/19
MMDDYY

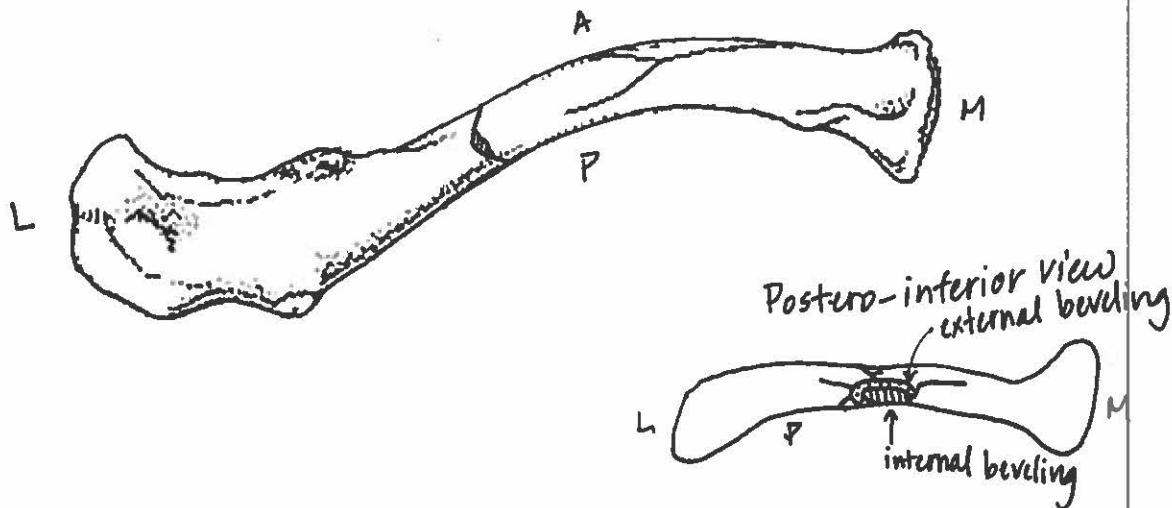
Harris County Institute of Forensic Sciences	
Section: Anthropology	Authorized by: Director of Forensic Anthropology
Form Title: FAD Cover Sheet	Form No.: ANTF-36
Rev.: 4	Rev. date: 11/16/2017

FORENSIC ANTHROPOLOGY CASE COVER SHEET	
CASE NUMBER: MLA-0330	AUTOPSY DATE: 1/29/19
PATHOLOGIST/FELLOW: Wolf/Beynon	
ANTHROPOLOGIST: Fleischman	REPORT: <input checked="" type="radio"/> Yes <input type="radio"/> No
REQUEST:	<input checked="" type="checkbox"/> Trauma <input type="checkbox"/> Sharp <input type="checkbox"/> Blunt <input checked="" type="checkbox"/> GSW <input type="checkbox"/> Unk <input type="checkbox"/> Pediatric Skeletal Examination (PSE) <input type="checkbox"/> Pathological condition <input type="checkbox"/> Biological profile (Identification) <input type="checkbox"/> Radiographic comparison (Identification) <input type="checkbox"/> Human/nonhuman and/or medicolegal significance <input type="checkbox"/> Radiographic Trauma Survey <input type="checkbox"/> Other:
SPECIFIC QUESTIONS TO ADDRESS OR ISSUES TO CONSIDER: <i>Assess trajectory - wound path directionality for left clavicle, left hand wrist, and right wrist</i> <i>IME 2/12/19</i> <i>IME 2/15/19</i>	
CONDITION OF REMAINS:	<input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Charred <input type="checkbox"/> Decomposed <input type="checkbox"/> Skeletonized Notes:
RECEIVED:	<input type="checkbox"/> During autopsy <input checked="" type="checkbox"/> Post-autopsy <input checked="" type="checkbox"/> In situ exam <input type="checkbox"/> Evidence <input type="checkbox"/> Other: Specimen(s): L. metacarpals 3-5, L. clavicle, R. distal radius, R. carpals Date Received: 1/30/19
PROCESSING:	<input type="checkbox"/> Formalin (Lot#) <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Chemical <input checked="" type="checkbox"/> Reconstruction - <i>cyanocrylate</i> Notes:
DOCUMENTATION:	<input checked="" type="checkbox"/> Photographs (gross) <input type="checkbox"/> Radiographs (skeletal) <input type="checkbox"/> Photographs (microscope) <input type="checkbox"/> Radiographs (dental) <input checked="" type="checkbox"/> Benchnotes (Pgs 5) <input type="checkbox"/> FORDISC (Pgs) <input type="checkbox"/> Scene notes (Pgs) <input type="checkbox"/> COC (Pgs) <input type="checkbox"/> Other (Pgs) Notes:
ARCHIVE:	<input checked="" type="checkbox"/> Anthro lab (dry specimens) <input type="checkbox"/> Anthro lab (wet specimens) <input type="checkbox"/> Return to morgue <input type="checkbox"/> Other:

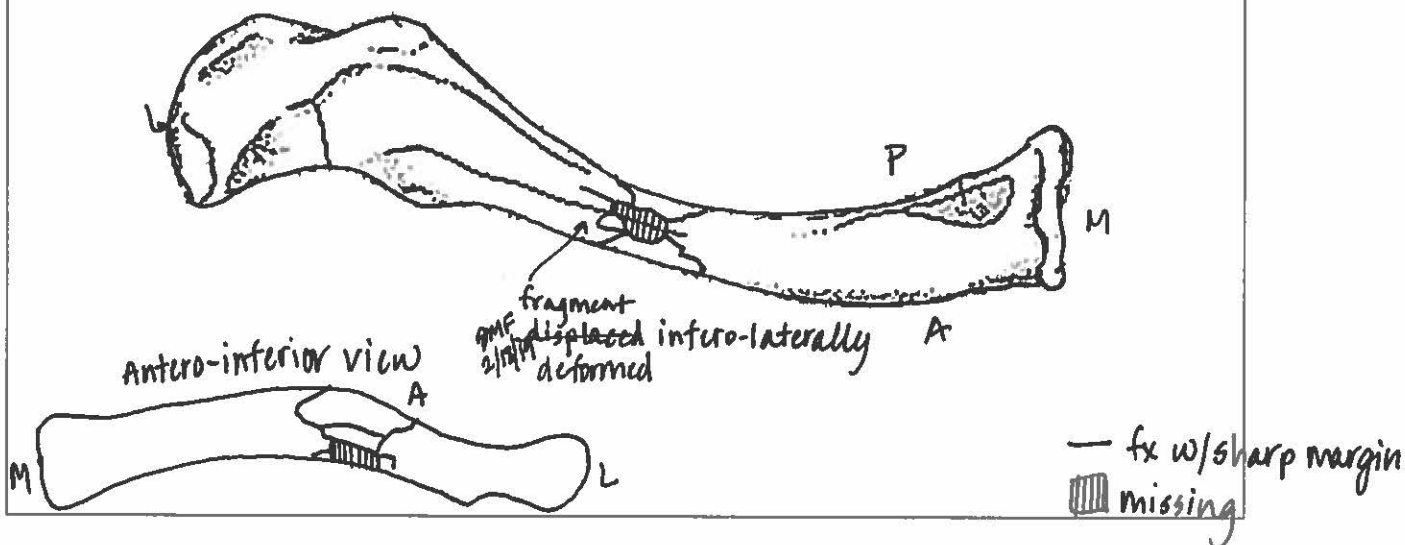
Harris County Institute of Forensic Sciences	
Section: Anthropology	Authorized by: Director of Forensic Anthropology
Form Title: Notes – Blank	Form No.: ANTF-8
Rev.: 1	Rev. Date: 03/20/2015

Reconstructed w/
cyanoacrylate

Left clavicle superior view



Left clavicle inferior view

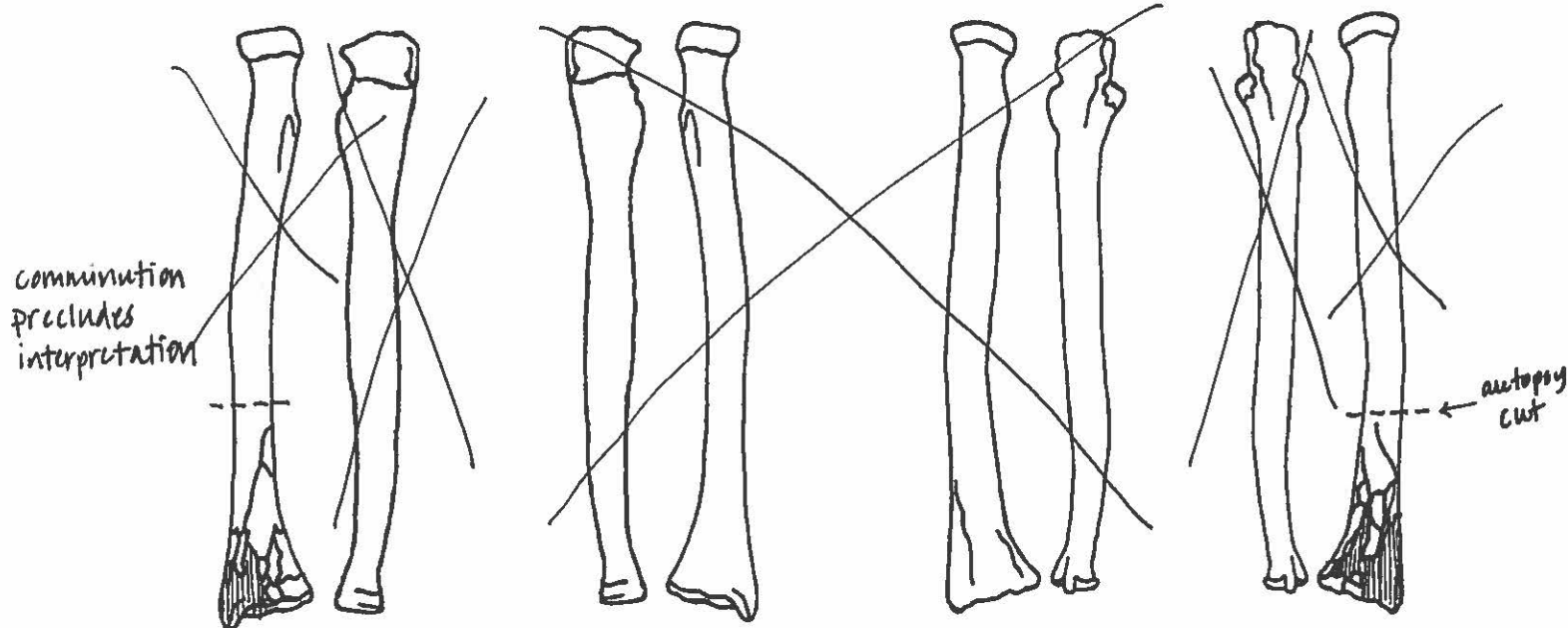
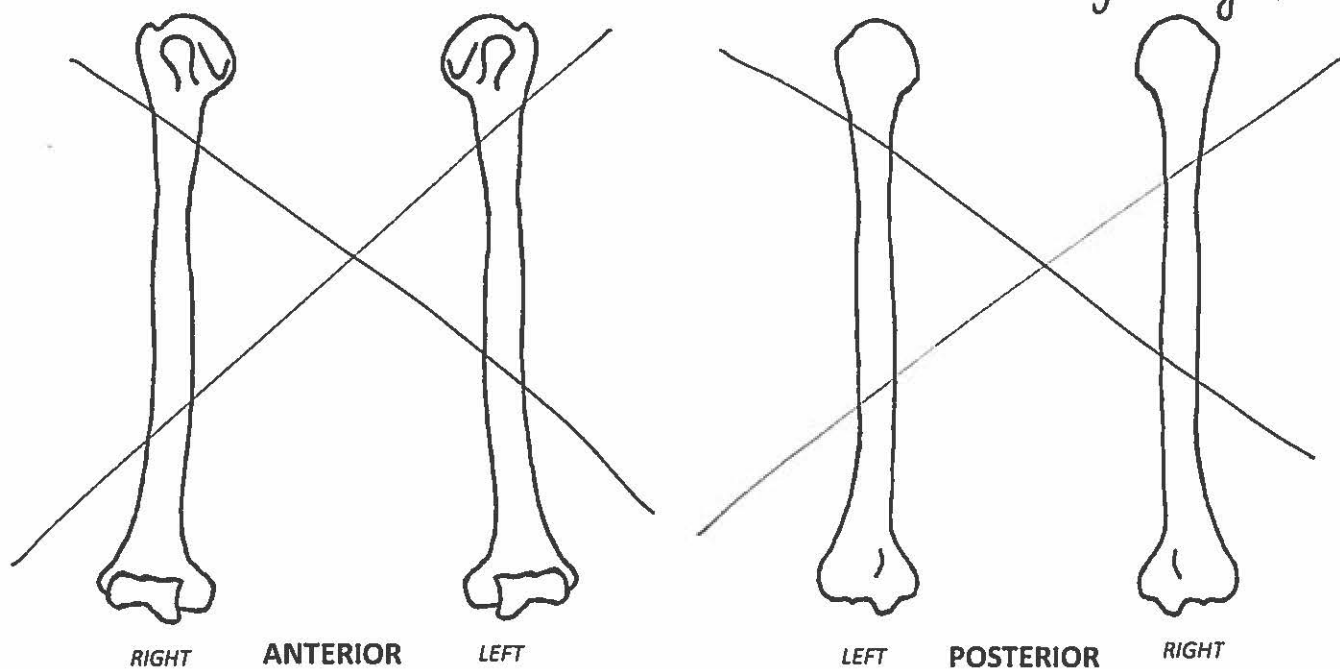


Case Number ML19-0330
Analyst Fleischman
Date 2/18/19

Harris County Institute of Forensic Sciences	
Section: Anthropology	Authorized by: Director of Forensic Anthropology
Form Title: Upper Extremity – Arm and Forearm	Form No.: ANTD-29
Rev.: 4	Rev. Date: 6/28/2017

Formalin Lot: N/A

Equipment used: Reconstructed with cyanoacrylate



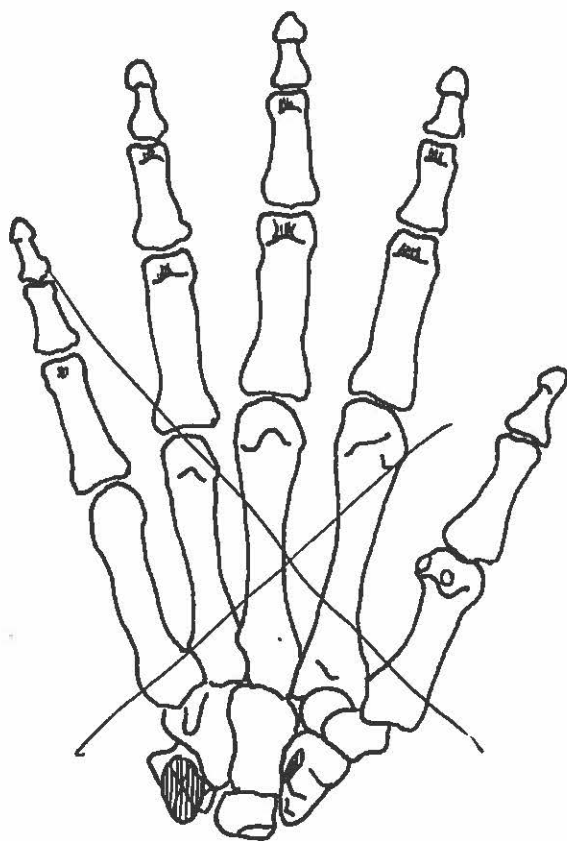
— fx w/ sharp margins
 absent

3 of 5

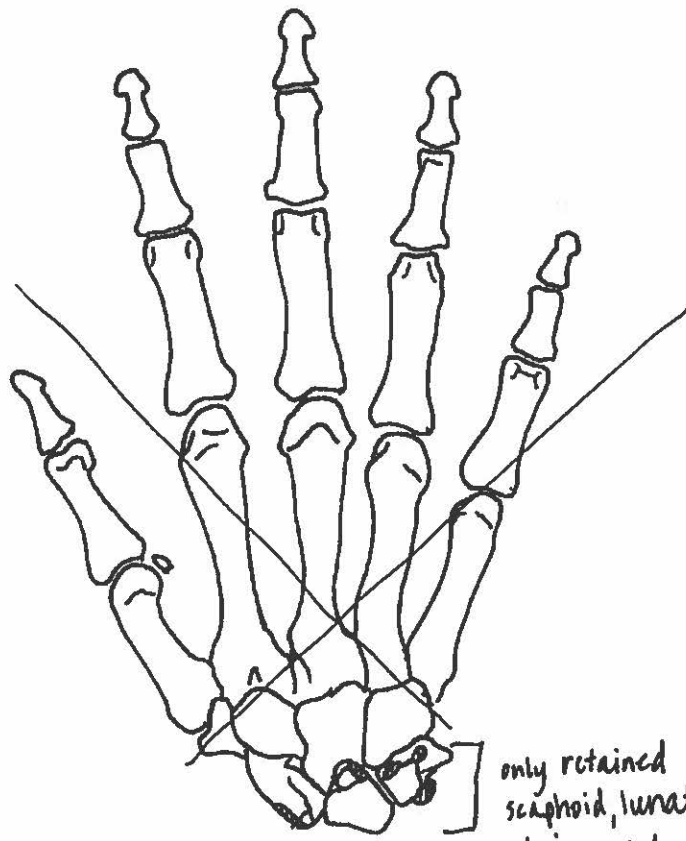
Case Number ML19-0330
 Analyst Freischman
 Date 2/18/19

Harris County Institute of Forensic Sciences	
Section: Anthropology	Authorized by: Director of Forensic Anthropology
Form Title: Upper Extremity - Right Hand	Form No.: ANTD-32
Rev.: 2	Rev. Date: 6/19/2017

Equipment used: *Reconstructed with cyanoacrylate*



PALMAR



DORSAL

only retained scaphoid, lunate, triquetrum

No patterning to the fractures

— fx w/ sharp margin

||||| absent

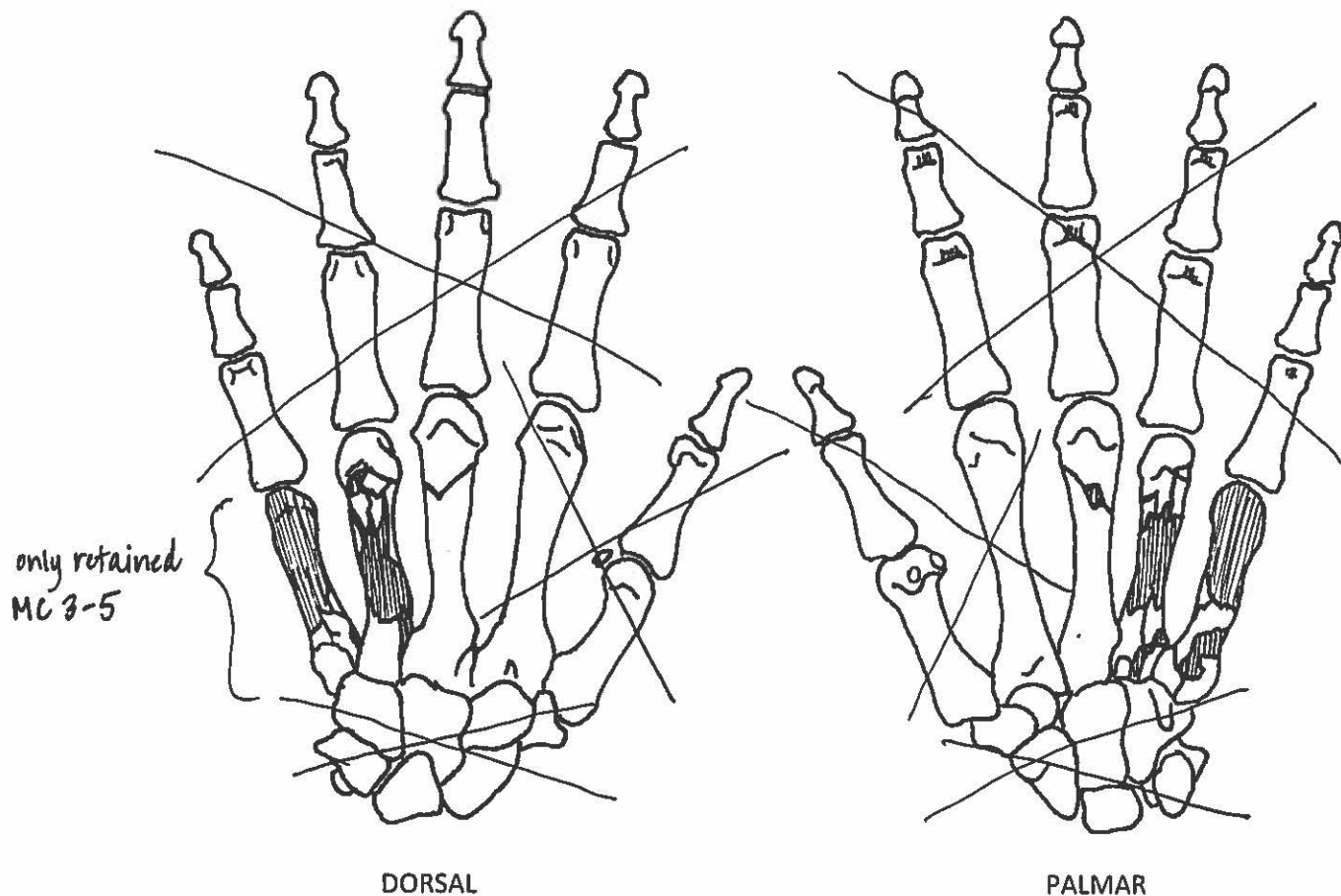
Case Number ML19-0330

Analyst Fleischman

Date 2/18/19

Harris County Institute of Forensic Sciences	
Section: Anthropology	Authorized by: Director of Forensic Anthropology
Form Title: Upper Extremity - Left Hand	Form No.: ANTD-30
Rev.: 2	Rev. Date: 6/19/2017

Equipment used: *Reconstructed with cyanoacrylate*



Comminution precludes interpretation

— fx with sharp margins
 [hatched box] absent

5 of 5

Case Number ML19-0330
 Analyst Fleischman
 Date 2/13/19