APPENDIX TO THE PETITION FOR A WRIT OF CERTIORARI

APPENDIX CONTENTS

APPENDIX A

2024 WL 278476
Only the Westlaw citation
is currently available.
United States Court of Appeals, Sixth Circuit.

UNITED STATES OF
AMERICA, Plaintiff-Appellee,
v.
GREGORY TAYLOR,
Defendant-Appellant.

Case No. 23-5473
|
January 25, 2024

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TENNESSEE

Before: GIBBONS, WHITE, and THAPAR, Circuit Judges.

OPINION

***1** THAPAR, Circuit Judge. After Gregory Taylor sold drugs to Gabriel Monske, Monske overdosed and died. A jury convicted Taylor of distributing heroin and fentanyl, and the district court gave Taylor a below-Guidelines sentence. Taylor appeals, challenging the evidence used at trial, the jury's verdict, and the reasonableness of his sentence. We affirm.

I.

After Gabriel Monske got a job offer, he set out to buy heroin to celebrate with his friends.

To get the drugs, Monske texted Gregory Taylor. This wasn't their first interaction. Taylor was listed in Monske's phone as "Gino heroin" and "Gino H." Taylor had sold Monske around $1,000 worth of heroin in the past. And, in fact, Taylor had already sold Monske heroin twice that week. Upset that Taylor's heroin wasn't strong enough, Monske had asked for "China White," which can refer to strong heroin or fentanyl. Taylor promised to provide a stronger drug. On the night of the celebration, Monske repeated that he wanted the "same [stuff]" or "stronger." Taylor obliged and drove to the house where Monske rented a room.

When Taylor arrived, Monske got into his car. Monske asked one of his friends, Alexis Warren, to join them. Warren observed Taylor get out of his car, retrieve something from the trunk, and return, giving the item to Monske. Warren then watched Monske and Taylor haggle over a price, exchange money, and discuss how Monske should hide the item in case police stopped him.

Right after Taylor drove off, Monske went into the house. Warren waited outside. When Monske returned, Warren noticed that Monske began acting "real weird." R. 150, Pg. ID 995. His responses slowed, and he eventually slumped over, pale and nonresponsive. Scared, Warren rushed Monske to a friend's house, where a shaky and sweaty Monske was dragged inside. The friends concluded that Monske was on drugs and helped him slowly recover.

Once Monske recovered, the group returned to the house where he rented a room. There, Monske prepared lines of heroin, which he, his friend, and his landlady snorted. Monske told

his friend he'd purchased the heroin earlier that day.

After ingesting several lines, Monske passed out and then vomited. Suspecting Monske had overdosed, his landlady called 911. Paramedics rushed to the scene, but it was too late: Monske was dead.

A responding paramedic thought opioids caused Monske's death because Monske's pupils were constricted. The state medical examiner conducted an autopsy. As part of the autopsy, the examiner asked National Medical Services Laboratories—a private laboratory the examiner often used for toxicology services—to test Monske's bodily fluids for drugs. In the fluids, NMS found large quantities of heroin and fentanyl breakdown products. Based on NMS's report, the state medical examiner concluded that Monske overdosed on heroin and fentanyl.

The government charged Taylor with distributing heroin and distributing a mixture of heroin and fentanyl, which resulted in Monske's death. *See* 21 U.S.C. § 841(a)(1). A jury found Taylor guilty of distributing heroin and a mixture of heroin and fentanyl, but not causing Monske's death. At sentencing, the district court calculated Taylor's Guidelines range at 210 to 262 months' imprisonment. Taylor did not object to the Guidelines range but asked the court to depart and vary to a lower sentence. The district court varied downward, sentencing Taylor to 180 months. Taylor appeals, challenging the evidence introduced at trial, the jury's verdict, and the reasonableness of his sentence.

II.

***2** At Taylor's trial, the government introduced the NMS Report—which found breakdown products of heroin and fentanyl in Monske's fluids—to prove that Taylor sold those drugs. Taylor claims that violated his Sixth Amendment right "to be confronted with the witnesses against him." U.S. Const. amend. VI.

"Witnesses" are "those who 'bear testimony' " against a defendant. *Crawford v. Washington*, 541 U.S. 36, 51 (2004) (citation omitted). So, the Sixth Amendment prevents the government from using "testimonial" statements at trial unless the defendant has an opportunity to cross-examine (i.e., "confront") the "witness who made the statement." *Bullcoming v. New Mexico*, 564 U.S. 647, 657 (2011). Taylor's Sixth Amendment challenge thus raises two questions: Was the NMS Report testimonial? And did Taylor have an opportunity to cross-examine the witness who made it?

Whether or not the NMS Report is testimonial, Taylor had an opportunity to cross-examine the witness who made it: Dr. Lamb. After NMS received samples of Monske's fluids, more than ten analysts tested the fluids, entered results into a computer, and reviewed those results for error. Then, "all of the information" handled by the analysts went to Dr. Lamb. R. 151, Pg. ID 1197. Dr. Lamb reviewed the same data used by the analysts, compared test results, and came to his "own conclusions" about the information ultimately included in the Report. *Id.* at 1173, 1186, 1197. Finally, Dr. Lamb compiled the

Report, signed it, and certified that the tests conformed to NMS standards.

At trial, Dr. Lamb introduced the Report, and Taylor cross-examined him about his role in producing the Report and its findings. Thus, Taylor had an opportunity to confront the witness who compiled the Report, signed the Report, and certified that its findings were valid. In other words, he confronted the "witness who made the statement" against him. *Bullcoming*, 564 U.S. at 657. The Sixth Amendment requires no more. *Id.*

Arguing otherwise, Taylor notes that Dr. Lamb didn't personally perform any tests on Monske's fluids. And, citing *Bullcoming v. New Mexico*, he argues the Sixth Amendment guarantees him the right to cross-examine the analysts who did. *See id.* at 651.

But the Confrontation Clause doesn't give Taylor a right to cross-examine "anyone whose testimony may be relevant" in establishing the accuracy of the tests. *Melendez-Diaz v. Massachusetts*, 557 U.S. 305, 311 n.1 (2009). Nor does the Clause create a best-witness rule, requiring the most knowledgeable or reliable analyst to appear. *See Crawford*, 541 U.S. at 62; *cf. Bullcoming*, 564 U.S. at 672 (Sotomayor, J., concurring in part) ("[T]his is not a case in which the person testifying is a supervisor, reviewer, or someone else with a personal, albeit limited, connection to the scientific test at issue."). Instead, it gives Taylor the right to cross-examine the "witness" who, through the Report, "bear[s] testimony" against him. *Crawford*, 541 U.S. at 51.

And the Report is Dr. Lamb's testimony, not the analysts'. None of the analysts compiled the Report. None of the analysts are identified on the Report, and only Dr. Lamb signed it. Finally, none of the analysts certified that the test results complied with NMS standards. Thus, it's Dr. Lamb—not the analysts—who "bear[s] testimony" that Monske's fluids contained lethal quantities of heroin and fentanyl breakdown products. *Id.*

***3** To be sure, if Dr. Lamb merely parroted the analysts' testimony, the Confrontation Clause might give Taylor a right to cross-examine the analysts. *Bullcoming*, 564 U.S. at 652 (noting "surrogate testimony" does not satisfy the Confrontation Clause); *Davis v. Washington*, 547 U.S. 813, 826 (2006) (similar). But the Report contains Dr. Lamb's "own conclusions" that he formed after his own, independent review of the data. R. 151, Pg. ID 1197. Taylor thus has no Sixth Amendment right to cross-examine the analysts. *See United States v. Miller*, 982 F.3d 412, 437 (6th Cir. 2020) (noting there's no right to cross-examine an analyst who "was not the 'speaker' who made the statements").

Bullcoming v. New Mexico is not to the contrary. In that case, a scientist certified that a lab report quantifying the defendant's blood-alcohol content was valid. 564 U.S. at 651. The government introduced the report at trial, and the Court treated the scientist's certification as testimonial. *Id.* at 657–59. But instead of having the certifying scientist testify at trial, the government called an analyst who "did not sign the certification or personally perform or observe the performance of the test reported

in the certification" and was merely "familiar with the laboratory's testing procedures." *Id.* at 651, 657; *see also* *id.* at 673 (Sotomayor, J., concurring in part) (noting the testifying analyst "had no involvement whatsoever in the relevant test and report"). The Court held that violated the Confrontation Clause. *Id.* at 657 (majority op.). That made sense: the certifying scientist—not the testifying analyst—was "the witness who made the [testimonial] statement" at issue. *Id.*

Here, by contrast, the government introduced the Report through the witness who made it. Again, the Report contains Dr. Lamb's own conclusions, Dr. Lamb is the one who compiled the Report, he's the only one who signed it, and he's the one who certified its findings. And Taylor had an opportunity to confront him. That is all the Sixth Amendment requires.

III.

Taylor next claims the jury didn't have sufficient evidence to find that he sold Monske a mixture of heroin and fentanyl. On this claim, Taylor faces an uphill battle. *See James v. Corrigan*, 85 F.4th 392, 395 (6th Cir. 2023). Out of respect for the jury's role in our system, our review of its verdict is limited. We construe evidence in the verdict's favor and ask whether, considering all the evidence, any rational juror could have found Taylor guilty of selling heroin and fentanyl beyond a reasonable doubt. *United States v. Avery*, 128 F.3d 966, 971 (6th Cir. 1997).

Abundant evidence supports the jury's finding. In his phone, Monske listed Taylor as "Gino heroin" and "Gino H," and Monske's messages indicated that Taylor had sold him about $1,000 in heroin.

On the day of his death, Monske told his friend he'd purchase heroin and then texted Taylor, asking for the "same [stuff]" or "stronger." R. 151, Pg. ID 1225 (spelling normalized). Warren watched Taylor sell Monske what she later concluded was heroin. Immediately after, Monske disappeared into his room and soon started showing signs of heroin use. That night, Monske snorted heroin that he said he purchased earlier that day. A responding paramedic thought opioids caused Monske's death. And the state medical examiner concluded that Monske died from ingesting lethal amounts of heroin and fentanyl.

Based on this evidence, a reasonable juror could conclude that Taylor sold Monske heroin and fentanyl.

In response, Taylor argues there's no physical evidence that he sold Monske those drugs. But circumstantial evidence "on its own" can sustain a verdict. *Avery*, 128 F.3d at 971.

***4** Taylor also posits that a jury shouldn't have trusted Monske's friends and landlady because they initially lied to the police, telling them they hadn't done heroin with Monske. Similarly, Taylor argues it's possible that someone else—one of Monske's friends perhaps—brought the heroin that Monske ingested. Yet, for purposes of an insufficiency-of-the-evidence claim, we resolve all inferences and issues of credibility in the verdict's favor. *Id.* Taylor can't prevail

by arguing that he would have weighed the evidence differently than the jury.

IV.

Next, Taylor raises two challenges to the procedural reasonableness of his sentence. First, he alleges the district court didn't consider one of his arguments. When sentencing Taylor, the district court started with an enhanced Guidelines range because Taylor had two prior drug convictions. *See* U.S.S.G. § 4B1.1(b)(2). Taylor thought it was unfair to count those convictions separately because they were resolved on the same day. So, he argued his Guidelines range overstated his criminal history, and he asked the court to depart and vary downward from that range.

Though district courts need not explain why they reject every argument, they should "listen[ ] to each argument" and "consider[ ]" the supporting evidence. *United States v. Vonner*, 516 F.3d 382, 387 (6th Cir. 2008) (en banc) (quoting *Rita v. United States*, 551 U.S. 338, 358 (2007)). Here, the district court did just that. It listened to Taylor's argument and, throughout sentencing, repeatedly referenced it, noting Taylor's criminal history was higher because of "the way [his prior] convictions were counted." R. 147, Pg. ID 745–46. The court ultimately confirmed that the sentence was based on the "position of the parties" and on "their arguments." *Id.* at 743. And most importantly, the court *credited* Taylor's argument, varying downward because Taylor's "criminal history and the career criminal status is overstated." *Id.* at 746. It's hard to imagine clearer proof that the district court "listened" to Taylor's argument and "considered" the supporting evidence. *See* *Vonner*, 516 F.3d at 387 (quotation omitted).

Second, Taylor claims his sentence is procedurally unreasonable because the court based the sentence on a clearly erroneous fact. *See United States v. Brinley*, 684 F.3d 629, 633 (6th Cir. 2012). When discussing the need to deter Taylor from committing further drug offenses, the court noted Taylor was "a very comfortable drug dealer" who repeatedly sold drugs. R. 147, Pg. ID 745, 748–49. Taylor claims there's no evidence he sold Monske drugs on more than three occasions.

But three sales are enough for the district court to conclude that Taylor was a repeat drug dealer. Regardless, there's evidence Taylor sold drugs more than three times. In addition to the three sales Taylor concedes occurred—each valued around $90—Taylor sold Monske about $1,000 in heroin. And Taylor had two prior convictions for selling cocaine. Thus, the district court didn't clearly err when it recognized Taylor repeatedly sold drugs.

V.

Finally, Taylor claims his sentence is substantively unreasonable—i.e., too long. Because the district court gave Taylor a sentence below the Guidelines range, we presume otherwise. *United States v. Skouteris*, 51 F.4th 658, 674 (6th Cir. 2022). To rebut that presumption, Taylor must show the district court gave "an unreasonable amount of weight" to a sentencing factor. *United States*

v. Mahbub, 818 F.3d 213, 232 (6th Cir. 2016) (quotation omitted).

Taylor first argues the district court placed too much emphasis on the seriousness of his crimes. The district court found that Taylor's crimes were "extremely serious" because heroin and fentanyl are dangerous drugs. R. 147, Pg. ID 744–45. That's a reasonable finding. *See* *United States v. Ford*, 724 F. App'x 428, 433–34 (6th Cir. 2018). Indeed, as the district court noted, those drugs caused a death in this case. Though the jury didn't find that Taylor caused Monske's death, the district court was free to treat Monske's heroin and fentanyl overdose as evidence that Taylor's crimes were serious. *See* *id.* at 436; *see also* *United States v. Kosinski*, 480 F.3d 769, 775, 777 (6th Cir. 2007) (noting a district court may enhance a defendant's sentence "based on factors not proven to a jury or admitted by a defendant" if they are "based on reliable information and supported by a preponderance of the evidence").

***5** Taylor also alleges the district court placed undue weight on his criminal history. Specifically, because his prior drug offenses were nonviolent, Taylor argues his initial Guidelines range overstated his criminal history. But while the district court was free to vary from the Guidelines range on that basis, it wasn't required to do so. *See United States v. Kennedy*, 65 F.4th 314, 326 (6th Cir. 2023). Regardless, the district court did vary down from the Guidelines range—because it thought that range overemphasized Taylor's criminal history. That Taylor would have varied further doesn't make his sentence unreasonable.

* * *

We affirm.

All Citations

Not Reported in Fed. Rptr., 2024 WL 278476

End of Document

APPENDIX B

MICHAEL LAMB,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. KIMBRIL-PARKS:

Q. Good morning. Could you please state and spell your name for the record.

A. Good morning. My name is Michael Lamb, L-A-M-B.

Q. And where are you employed?

A. I am employed at NMS Labs located near Philadelphia, Pennsylvania.

Q. And what is NMS Labs?

A. NMS Labs is a large, privately owned, independent laboratory that offers a variety of services specializing in toxicology and seized-drug analysis testing.

Q. And how long have you been employed by NMS Labs?

A. Just over ten years.

Q. And what are your duties and responsibilities at NMS Labs?

A. I've had many positions at NMS Labs. I've worked in the lab handling tens of thousands of samples for the analysis of drugs, poisons, or other intoxicants in biological specimens.

My current role now is a forensic toxicologist. My primary duties involve reviewing all of the analytical

data and case history and case work for -- for an individual case and ensuring proper chain of custody is followed and standard operating procedures are maintained throughout the analysis. Once that review of all of the data for a case is satisfied by myself, I would issue a report with the findings on it and my signature on it.

Q. And did do you that in this case?

A. Yes, I did.

Q. What type of education do you have to prepare you for this position?

A. I have a bachelor's degree in neuroscience from Binghamton University in Binghamton, New York. And I also have a master's degree in forensic science from Arcadia University in Glenside, Pennsylvania.

Q. And type of professional experience has contributed to your current position?

A. I've -- I am certified by the American Board of Forensic Toxicology as a diplomate to practice in forensic toxicology. I take dozens of hours of continuing education a year in training of toxicology, including postmortem toxicology, human performance toxicology, driving under the influence, drug-facilitated assault, among others.

Q. And how much of your time is devoted to this type of work?

A. My job is a hundred percent devoted to forensic toxicology.

Q. And have you ever testified as an individual with specialized knowledge in forensic toxicology?

A. Yes, I have.

Q. You know approximately how many times?

A. About maybe 35 times now.

Q. State and federal court?

A. State and federal, yes.

MS. KIMBRIL-PARKS: At this time, Your Honor, I would tender Michael Lamb as an individual with specialized knowledge in forensic toxicology.

THE COURT: Any objection, Mr. Thomas, Mr. --

MR. THOMAS: No objection, Your Honor.

THE COURT: Okay. Another opinion or expert witness is being tendered to you. We are going to receive Michael Lamb as an expert or opinion witness in the area of forensic toxicology.

BY MS. KIMBRIL-PARKS:

Q. If you could, please just explain to us the process by which certain samples are submitted to your lab for analysis.

A. So NMS Labs, I mentioned, is a large -- is a large organization, and we do accept testing from pretty much every state in the country and some other countries in

the world. Generally samples will arrive via certified, secure overnight mail to our facility. Our laboratory is a secure facility that only a small subset of people have access to. The accessioning department or receiving department that receives the packages in the mail is even smaller subset of people that have access to that information.

Packages come in, and they are opened up one at a time. The contents of the package are inspected. They usually are -- accompanying paperwork usually arrive with the sample. So all of that information at that time is entered into our laboratory information management system or our computer system. And it is -- at that time, the case is assigned a unique eight-digit work order number that is unique to that sample and that sample alone. A barcode is affixed on the samples that are received so that anytime the samples are handled, we can scan them for chain-of-custody purposes so that we know who had them, for what purpose and when.

Q. And was that done in this case?

A. Yes, as one of my duties of reviewing the case before issuing a report is to verify that all of the appropriate chain-of-custody steps are followed.

Q. And did you receive samples from the University of Tennessee forensic center located here in Memphis,

Tennessee?

A. Yes, we did.

Q. And did they identify that by patient ID of 2018-0270?

A. Yes.

Q. And associated with an individual by the time of Gabriel Monske?

A. That's correct.

Q. And was it provided, this unique number?

A. Yes, it was.

Q. What was the number that was attributed to this analysis?

A. If I may, if -- it would be on the toxicology report. I just didn't remember it.

Q. Okay. If I could pass forward what's been previously marked for identification as Exhibit Number 17.

(A document was passed to the witness.)

THE WITNESS: Thank you.

BY MS. KIMBRIL-PARKS:

Q. Do you recognize that document that's been handed to you?

A. Yes. This is a copy of the report. It -- discussed today.

Q. And that's a report that you compiled at the

conclusion of all analyses that were conducted on the samples that were submitted?

A. Yes, it was.

Q. And was it done at or near the time in which those analyses were conducted?

A. Yes.

Q. And certified by you?

A. Yes, it was.

Q. After verifying the information that was done during the testing process?

A. That's correct.

MS. KIMBRIL-PARKS: Your Honor, we'd ask that that be moved into evidence at this time as Exhibit Number 17.

THE COURT: Thank you. And we will remove the letters "for ID only." Exhibit 17 is now in evidence.

MS. KIMBRIL-PARKS: And if I could just display that, Exhibit 17, on the screen so the jurors can see it.

(The above-mentioned item was admitted as Exhibit No. 17.)

BY MS. KIMBRIL-PARKS:

Q. Can you see that okay?

A. Yes, I can.

Q. And does that refresh your memory as to the unique number that was assigned to that particular analysis?

A. Yes. Thank you very much. The unique number is listed in the -- in the -- kind of the top right-hand corner, under the last line. It says work order, and then right next to it, it has those eight digits: It is 18047660.

Q. And, again, the patient name was identified as Gabriel Monske?

A. That's correct.

Q. And that was the information that was provided to you by the medical examiner's office in Shelby County?

A. Yes, that is the information that is included on any submission paperwork that accompanies the sample. That information is also verified to match whatever the specimens that are received. So the individual tube of blood or urine must contain the same identifying information on the paperwork, which they were, which was done in this case.

Q. And what type of samples were submitted with regards to this case?

A. We received several samples: iliac blood, vitreous fluid, and urine.

Q. And walk us through the process, once the analysis is done, the steps that is taken by the scientist.

A. So generally, depending on the order testing or depending on the requested testing, the first thing

that's going to happen when a sample is tested at NMS Labs is undergo what we call a screen. So a screen test is -- is the first step in identifying controlled substances and biological specimens.

So what we would do with those -- with that screen test is look for a variety of different drugs or general classes of drugs. And if they are presumptively identified on that screen test, we then perform more specific and sensitive confirmation testing using alternate methodologies that are able to identify the unique drug of interest and quantitate or provide an amount of that drug, generally done by what we call -- is liquid chromatography, which is the gold standard in the identification of substances in biological fluids.

Q. And what did the screening in this case reveal?

A. We -- it screened positive for several substances, alcohol or ethanol being one of them. We also did screening. Screening identify codeine, morphine, diphenhydramine, fentanyl and its metabolite, and the 6-acetylmorphine, the heroin metabolite as well.

Q. And once you identified these substances during the initial screening, you said you did more specific testing. What additional testing was done at that point?

A. That's correct. So it's done by a test called liquid chromatography-mass spectrometry, which is

allowed -- allows us to look at the -- at various analytes of interest and identify them on a molecular level and provide a response or generate an amount of the substance that's present in that -- in that specimen.

Q. And looking, does this display the amounts that were associated with the substances that were found in various -- whether the -- the blood, the vitreous fluids, or the urine in Mr. Monske's case?

A. Yes. These are all the results of the -- of the -- of the confirmation testing done in this case.

Q. Okay. So let's talk about what was found, the substances that were found.

Now, as the toxicologist, what are the responsibilities of the toxicologist, or what does a toxicologist do with the information that they've obtained?

A. Well, we essentially -- we are -- we're reviewing the raw data to ensure that any screened data and confirm -- and confirmatory data aligns. Usually at the time of case review, that's the only involvement that is going to be had. But afterwards or after the fact, toxicologists are often asked to opine on what relative concentrations mean and how -- and what their presence in the body is -- how it's significant for a particular case.

Q. Starting with the ethanol, what was the concentration in the body?
A. The concentration detected was 16 milligrams per deciliter or more familiar as .016 grams percent.
Q. And is that, in and of itself, considered lethal?
A. No. As Dr. Valentine mentioned, it would probably be about a -- maybe one or two drinks, if someone were consuming alcohol. Alcohol can also be a biological product of postmortem processes or decomposition processes. So there could be various explanations about the presence of alcohol, but it is low, in any case.
Q. Okay. There was also a positive result for caffeine?
A. Yes. Caffeine was identified as -- and reported as positive; however, it's important to note that we only -- we only report some of these findings as positive or negative because incidental finding. So they -- we didn't do a confirmatory test for caffeine. It just could be indicative of someone having a cup of coffee.
Q. What do you mean by incidental finding?
A. Incidental meaning not toxicologically significant to pursue confirmation of a quantitative result, so it's common in a large population of findings.
Q. Cotinine? Is it cotinine or cotinine?
A. Cotinine, yes. That's a metabolite of nicotine, so

someone could have -- this person could have been a smoker or vaped tobacco.

Q. And, again, that was not toxicology significant?

A. Correct, yes.

Q. Naloxone?

A. Naloxone is -- it's Narcan, and it's just -- it's given in -- in -- to patients who are suspected of succumbing to opioids as it blocks that receptor that the opioids act on. It is -- again, it's just reported as positive or negative when it's found, as it's not -- it doesn't cause any toxic effects.

Q. Codeine free?

A. So codeine free is -- it's an opioid compound that can be present in a couple of ways. It is a prescription medication, in its own right; however, it is commonly also found in cases where someone has ingested heroin.

Q. And did this case seem to indicate that the individual did ingest heroin?

A. Yes. The -- the finding of the 6-MAM or the 6-acetylmorphine free in the -- in the urine is -- is certainly indicative of heroin ingestion. That is a -- that 6-MAM is a unique marker for exposure to heroin in the system.

Q. Why is it unique?

A. Because it can -- it cannot be produced via any

other pharmacological mechanism. It's not a -- it's not a drug that could -- that should be encountered in the system.

Q. Is there any significance that the 6-MAM was located in the urine and not in the blood?

A. It's not uncommon. 6-MAM has a very short half-life, about six to 27 minutes in the blood, so it often may not be detected in the blood but can certainly be detected in the urine as when -- as the urine kind of extends that window of detection a little bit longer.

However, just -- it's important to note that we did detect a small amount of 6-MAM in the case. However, it wasn't -- it didn't meet our reporting criteria. So we -- we're able to identify its presence in the blood, but it just wasn't able to confirm quantitatively.

Q. Want to talk a little bit more about half-life. Could you explain to us what is meant by half-life?

A. So the half-life is -- is just the terminology given to the idea that in the blood, once a drug enters your body at a specific concentration, it's going to decrease by half that specific concentration, depending on at various times. So some drugs have very short half-lives, like cocaine or heroin, and some drugs have very long half-lives like marijuana.

Q. So by heroin having a short half-life, does that

mean close in time to when the individual used?
A. Correct. Yes. It's -- it's -- the detection of the 6-MAM is generally indicative of -- is recent heroin usage just because it is -- it is eliminated from the body so quickly due to that short half-life.
Q. Could you be more specific as to the time of usage?
A. In blood, I would expect to see -- I wouldn't expect to 6-MAM for longer than several hours, for longer than three or -- two or three hours. In urine, you can extend that window a little bit longer because, like I said, the window of detection in urine can generally be seen as longer, maybe within a day or so.
Q. Diphenhydramine.
A. Diphenhydramine is -- it's commonly known as Benadryl. It's an over-the-counter antihistamine.
Q. And the reported levels with the diphenhydramine was reported at 210 nanograms?
A. That's correct.
Q. And what is the range of which -- is there a particular range associated with certain narcotics to determine whether or not it's lethal or therapeutic or even --
A. So yes. In -- in specimens taken from human -- alive, biological specimens, we are able to -- or alive people, rather -- we're able to establish what are

therapeutic or maybe toxic or excessive ranges. So yes. In general, concentrations where someone maybe took -- so the -- so an over-the-counter Benadryl, one pill is generally 25 milligrams. So you may be -- the constructions [sic] may be stated, take two pills, so that's 50 milligrams of diphenhydramine.

Generally, plasma concentrations in living people are about 100, maybe 200, nanograms per milliliter. However, it's important to note that these studies are taken from the -- the blood of people that are alive. And postmortem toxicology results cannot always be interpreted to be the same as if the person was alive. Postmortem results can often change, or they can increase or decrease. So it's really difficult, and we're unable to determine the amount or dose of a drug from a postmortem level alone.

Q. The reported amount as to the diphenhydramine was 210 nanograms, correct?

A. That's correct.

Q. And the average blood diphenhydramine concentrations that resulted in death of an adult was around 15,000 nanograms, correct?

A. Correct. I've seen as high as cases involving 36,000 nanogram per milliliter, involving a death due to diphenhydramine as well.

Q. So 210 is fairly insignificant?
A. No. Correct, yes. In my experience -- and I've -- and I've seen thousands of diphenhydramine results in postmortem blood, and this is an unremarkable amount and probably less than what we see on average concentrations.
Q. Okay. And I think I forgot to ask you with regards to the heroin, the -- that level. What is the range with regards to that which is considered lethal?
A. It's a wide range. I don't know exactly, but it would -- it would -- it could extend. I've seen heroin -- the morphine levels in heroin cases up to 500 but as low as 40 nanogram per milliliter as well.
Q. And this falls within that range?
A. Yes, it does.
Q. Now, looking at the fentanyl, what was the reported amount?
A. The reported amount is 19 nanograms per milliliter.
Q. And what is the range that is typically attributed or the average in which an individual has been determined to be lethal?
A. Well, we've -- you know, I've personally seen fentanyl concentrations attributed to lethality as low as three nanogram per milliliter; however, we are starting to see, just due to the increase of fentanyl being detected in the -- in the seized-drug market, people are

developing tolerance. We're starting to see very high concentrates of fentanyl reported. I even -- now I see people driving with fentanyl concentrations greater than 50 nanograms per milliliter. So I think that the lethal range is very variable where you can have someone, due to tolerance, have a very high fentanyl concentration. But 19 nanograms per milliliter is certainly potentially significant and would fall within that lethal range.

Q. Okay. And I think Dr. Valentine has seen cases in which two nanograms -- as low as two nanograms has led to a fatality, correct?

A. Yes. They could be -- those cases may -- what we defer as delayed-death cases where someone -- maybe they took -- they got to the hospital, and we measured their blood concentration later, but they could still have succumbed to the effects of the drug.

Q. Okay. And you've seen cases as low as three; is that fair to say?

A. Yes, that's correct.

Q. In your experience with analyzing narcotics coming from across the nation and even across the world, during this time period, was it common or uncommon to see both heroin and fentanyl present?

A. It's certainly common. We -- we rarely -- in my experience now, I'm rarely seeing heroin by itself. It's

usually mixed with fentanyl, where people think they're buying heroin, and it's actually fentanyl. It's depending on the region. Certain regions in the United States have different amounts of -- of drugs, however. But yes, it is fairly common at this time to see both heroin and fentanyl combined together or sold together.

Q. And there was also the presence of norfentanyl?

A. Yes, that's correct, the fentanyl metabolite or breakdown product.

Q. And what's the significance of the presence of the norfentanyl?

A. Well, I think in this case it's important to note that the norfentanyl level is -- is much lower than the fentanyl level. So oftentimes, in toxicology, you can use the ratio of the parent or the fentanyl to the metabolite or the norfentanyl drug to determine an approximate timeline of usage. So if someone has a high parent relative to their metabolite, it may indicate that the body didn't have enough time to process or break down the fentanyl before the person succumbed to death.

Q. There's also a reported level of 23 with regards to the ethanol in the vitreous fluid. That's the fluid in the eye?

A. Yes. So the vitreous humor or fluid is just fluid collected from behind the eye. It's -- it's often used

to substantiate any ethanol findings in blood, as it's a -- it has a high amount of water, and ethanol easily distributes itself in the body based on its affinity for water. So the fact that the vitreous results of 23 compared to the ethanol results of 16 is consistent with the consumption of possibly a low amount of alcohol or one to two drinks.

Q. You also showed presumptive positive for opiates, benzodiazepines, cannabinoids, fentanyl metabolite. Is there -- was there any additional testing done with those particular presumptive positives?

A. No. So based on the testing ordered, which is just a postmortem screen in the urine and then a quantification on the heroin metabolite that's 6-MAM only. So the presumptive positive result, for example, for the benzodiazepines, for example, should only be considered presumptive at this time.

Those -- the technique used to perform that test is called an amino essay, and it's just a -- it's very specific. I mean it's a very sensitive but not specific technique that doesn't allow us to say definitively that benzodiazepines are present. In our on the second page actually recommends a second test to confirm the presence of those -- those four presumptive positives.

Q. Okay. Of the substances that were found in Gabriel

Monske's samples, which of those were considered lethal?

A. The -- the heroin or the morphine concentration reported in this case would follow under a range that was consistent with the legal outcome, also the fentanyl as well.

MS. KIMBRIL-PARKS: If I could have just a moment, Your Honor.

THE COURT: Okay.

MS. KIMBRIL-PARKS: Pass the witness, Your Honor.

THE COURT: Thank you.

And is there cross, Mr. Thomas?

MR. THOMAS: Yes, Your Honor.

THE COURT: I think we'll take it up after we take a break. Be about 10, 15 minutes. We'll go ahead and take that break at this time, our mid-morning break.

Ladies and gentlemen, don't discuss. Leave your notebooks. We'll pick this up after we get refreshed. About 15, 20 minutes. We'll go ahead and excuse you to the jury room.

Mr. Lamb, don't discuss your testimony with anyone over the break.

THE WITNESS: (Nodding head up and down.)

THE COURT: You can go ahead and step down.

THE WITNESS: Thank you.

(The jury exits the courtroom at 10:33 a.m.)

THE COURT: Okay. We'll be in recess.

(Recess at 10:34 a.m. until 10:57 a.m.)

THE COURT: Okay. Anything before we bring in the jury?

MS. KIMBRIL-PARKS: No.

THE COURT: No?

MR. THOMAS: No, Your Honor.

THE COURT: Okay. Bring them in, please.

And Mr. Lamb, come on back up.

(The jury enters the courtroom at 10:57 a.m.)

THE COURT: Okay. Everyone, we're ready to continue, so going to turn it over to Mr. Thomas for cross-examine.

CROSS-EXAMINATION

BY MR. THOMAS:

Q. Good morning, Dr. Lamb.

A. Good morning.

Q. Dr. Lamb, as the certifying -- flip to that -- certifying scientist with regards to the toxicology report that was prepared by NMS Labs, you didn't personally test the substance listed in the report, correct?

A. No, that's correct. I haven't personally test -- handled the sample for this case.

Q. But you did go through to review the specimens that were tested and how that testing was conducted?

A. I review all of the internal data that we maintain during the regular course of analysis. So every test that is performed involves documentation, and all of that data that -- the same data that the laboratory uses to finalize their results are -- is the same material that I review for my final, high-level review of a case.

Q. And as the certifying scientist, you make sure that the test conform to NMS Labs' policies, procedures, and what have you?

A. That's correct.

Q. In this case, the report that was previously marked as Exhibit 17, the reference comments that are provided

in that report starting at Page 2, as the certifying scientist, do you provide those -- those comments, those reference comments?

A. So those are standard canned comments that are included on our NMS Labs' reports for -- for just clarity, for explanation of the findings on -- they are written and crafted by myself and other -- and other toxicologists. We review peer-reviewed publications, and then we use that information and apply them to that reference commentary. So I don't -- I don't do that for every report. They're general standard canned comments.

Q. And did you -- were you involved in adding any of those comments on this particular report?

A. No, I was not.

Q. Are you familiar with the comments?

A. I am, yes.

Q. Now, during your testimony, you -- in discussing the levels in the toxicology report, you mentioned something that I noted saying that you've seen delayed-death cases. Am I -- I want to make sure I'm not mischaracterizing your testimony.

A. Yes, a delayed-death case.

Q. Explain. Explain what that would be, sir.

A. Those are cases where someone -- they may have taken a drug, and then there were some sort of medical

intervention. They may have ended up in a hospital, and blood collected several hours later was not indicative or representative of the blood concentration at the time that the person entered the hospital, putting them into whatever specific state they were in.

Q. And what could be the cause of that delay?

A. They're -- someone could've had just an issue where they weren't getting enough oxygen to their brain temporarily, that they had survived.

Q. Okay. Now -- but the fentanyl levels and norfentanyl levels at issue in this case don't -- don't give you that reason to believe this was a delayed-death case?

A. No, they do not.

Q. And why is that, sir?

A. Because -- because they -- because of the elevated concentration, in conjunction with other instances of the case noted by the medical examiner, ruling this as a -- you know, a drug-induced death.

Q. Now, you also testified that fentanyl -- and I want to make sure because that this -- I think it simplified it for me. Fentanyl being the parent substance to norfentanyl?

A. That's correct.

Q. Okay. And you testified that you can -- there can

be a way that you can look at the ratio between the fentanyl and norfentanyl to try to determine the usage time?

A. It's -- you can't -- you can't get an exact usage times. It's a general tool used to approximate or just give a guideline.

Q. Can you -- based upon the norfentanyl level of 3.2 nanogram per milliliter versus the fentanyl level of 19 nanograms per milliliter, can you give a -- do you have a -- are you able to determine or estimate what the usage time would've been for these substances?

A. No, we cannot calculate the exact time; however, it's just a basic toxicological principle that it would have been shortly before death, but we cannot give exact minutes or hours.

Q. Okay. But as -- when you say "shortly," though, is -- what do you mean by "shortly," since we can't say minutes or hours?

A. You know, I can't give an exact number.

Q. Okay. All right. Now -- and -- and just so we're clear, I don't think there's any disagreement with regard to this. The morphine level would've been derived from the heroin use, correct?

A. Generally. Due to the presence of the heroin metabolite in the urine, it could be assumed that the

morphine came from heroin.

Q. And that level at 41 nanograms per milliliter is within a lethal range of -- for heroin or for, I should say, morphine?

A. Yes. It falls within that wide range of morphine reported in heroin-related deaths.

Q. Now, the -- and the fentanyl, at 19 nanograms per milliliter, also falls within a lethal range?

A. Yes, it does.

Q. Now, we talked about the diphenhydramine being 210 grams, 210 nanograms per milliliter, but that's not a lethal dose of -- that's Benadryl; simple for me. It's not a lethal dose of Benadryl, though, correct?

A. Correct. It's not impressive.

Q. What is a normal, therapeutic-use amount of Benadryl that you would normally see?

A. And generally, from living people, from, you know, blood or serum taken from a living person, we've seen concentrations -- if someone's given maybe 25 or 50 milligrams of Benadryl -- maybe less than 200 nanograms per milliliter. However, there may be other medical usages, or some people may take more Benadryl, not necessarily excessive amounts, but they -- it may be that, just taken more.

Q. And if a person has a history, say, of abusing

Benadryl, would you see higher levels of Benadryl in the blood?

A. Yes. If they -- if they had been taking more Benadryl, you would see, you know, progressively more higher levels in blood samples, depending on dose.

Q. Would that be true for -- say, for instance, the codeine and morphine, if someone had a history of abusing heroin?

A. Yes, assuming that they were taking more of the substance in higher levels to produce the same effects to negate that -- you know, that buildup of tolerance.

Q. And what about -- what about fentanyl or in norfentanyl?

A. Yes, I would -- it would be the same. I -- understanding.

Q. Now, I note in the report, when it comes to the Benadryl, that generally a single 50-milligram dose ingested orally would normally average -- it says: Peak plasma concentrations at 2.3 hours, average 66 nanograms per milliliter.

What does that information -- where is that information derived from?

A. That has come from -- I can't name the study off the top of my head, but it's their peer-reviewed Benadryl study where they -- where they adosed (phonetic) certain

individuals and taken blood samples or serum samples from that person.

Q. Based upon the level of diphenhydramine being at 210 -- 210 nanograms per milliliter, can we presume that the -- Mr. Monske here took well above 50 gram -- 50 milligrams of Benadryl?

A. I don't think that we can make that assumption. You know, the -- the interpretation, as a forensic toxicologist, where -- you know, what -- a lot of what we study is the drug levels in postmortem samples, and it's the -- you know, the -- the biggest -- the biggest, important fundamental principle that we go by is that postmortem blood -- blood results are not necessarily equivalent to antemortem or what was circulating in the person at the time of death. So it's -- they cannot be correlated well.

There is phenomenon called postmortem changes or postmortem redistribution where drug concentrations can change in the body after death. So it's really not an appropriate practice to translate a postmortem drug sample to -- to what it would have been had a person been alive.

Q. And that's -- and is that what you were referring to when you talked about the -- the alcohol levels being effective -- being affected postmortem?

A. Similarly, it's a different process. Ethanol, just due -- microbes or little microbial activity in your body that produces small amounts of ethanol, depending on various states such as bodily function or even decomposition, can produce ethanol in the body.

Q. What would affect the levels with regards to heroin use in the body postmortem?

A. It's a -- it's a principle that all drugs must be examined for -- for the possibility of postmortem changes or the evaluation. So the -- the concentrations that we were discussing regarding heroin and morphine were from postmortem samples, so we are -- you know, it's important to compare postmortem to other postmortem, rather than comparing postmortem to a clinical sample.

Q. Can those levels continue to decrease postmortem?

A. I've seen drug concentrations increase or decrease after death, and that could be depending on where the blood is taken. So if it's from a central cavity like the heart or peripheral part of the body like your femoral vein in the leg, you can have different concentrations of drugs in a postmortem sample.

Q. And it's your understanding that the -- this blood was taken from the decedent's leg?

A. That -- yes, the iliac vein.

Q. Now, with regards to what's -- as far as the

testing of the blood is concerned, if you will, is the blood examined for every possible substance that's in the blood, or is it specific to just each substance has to be tested just to see if it's there to begin with?

A. So we were asked -- so NMS Labs will perform testing that is requested by whoever submits the blood sample. So we don't -- we don't choose the test that -- to perform. But in this case, the blood sample was submitted for what we call an expanded postmortem drug screen, and it's a comprehensive screen that looks for about several hundred different of the most commonly abused prescription or illicit medication, including novel psychoactive substances, so chemical-like drugs that are just out in the recreational drug market.

So it's a pretty comprehensive test. If any of those substances included in the range of the screened are -- and are detected on that screen, we are able to perform confirmation testing for those substances. So we don't test for -- there's no test that will test for every drug underneath the sun, but it's a pretty comprehensive test.

Q. If THC or marijuana was present in the decedent's blood, is that something that would have shown on the test that you-all run?

A. Yes. We did do a screen for THC, for marijuana as

well, and it was -- it did not confirm as positive in this case.

Q. But the cannabinoids was a presumptive positive but only in the urine?

A. Right. And that could be explainable because cannabinoids can stick around in the urine for weeks longer than they can in the blood, especially in chronic users.

Q. How long would the cannabinoids be present in the blood following usage, generally?

A. Well -- and so, it's -- it's interesting. In very habitually chronic users -- I'm talking heavy, heavy chronic users that would use marijuana all day, every day. If they stopped or at the cessation of marijuana smoking, there are -- there are markers of marijuana or metabolites that can be detected for weeks in someone's blood for those heavy, chronic users. But in general, someone who doesn't smoke marijuana or doesn't use marijuana as -- on an occasional basis, THC or the active ingredient in marijuana dissipates rather quickly from the blood.

Q. When you say "rather quickly," do you have like a half-life, or how long that would --

A. Generally, within several hours, THC may not be detectable in the blood in users that don't use marijuana

frequently.

Q. Now, postmortem -- will substances found in the blood transfer to being found in the urine postmortem?

A. Well, it depends on the time of ingestion, but generally you can see -- you can see drugs in the urine and the blood. But like I said, it depends on time of ingestion. If someone were to die relatively soon after taking a drug, it might not have had enough time to go through the process of metabolism and then be excreted in the urine to be detected at a full amount or confirmable amount.

Q. But would it -- would it -- would it occur after the person's already deceased?

A. No. Metabolism would not -- would not continue after someone had died.

Q. So once the person's deceased, then the metabolism just would stop altogether?

A. That's correct.

MR. THOMAS: Have one moment, Your Honor?

THE COURT: Go ahead.

MR. THOMAS: Nothing further, Your Honor.

THE COURT: Okay. Thank you.

Any redirect?

MS. KIMBRIL-PARKS: If I could have just a second, Your Honor.

REDIRECT EXAMINATION

BY MS. KIMBRIL-PARKS:

Q. Just a couple more questions. You indicated that you did not conduct the actual analysis of the specimens that were submitted, correct?

A. That's correct.

Q. But you indicated that you -- let me just ask you:

What do you do with regards to the information associated with those particular samples?

A. So all of the information that is handled by the analyst, the qualified analyst in our laboratory who do to preparatory, who do -- who do the instrument setup and the analysis, all of that information is reviewed by myself, independently.

Now, I have knowledge and training in all of the testing procedures throughout the laboratory, and I kind of act as a tertiary level of review to ensure that each aspect of the -- of the sample, whether it was the confirmation for the fentanyl or the -- or the alcohol or the opiates were all independently performed and conform to all of our standard operating procedures. So I do this whole independent level of review of the data, coming to my own conclusions about the acceptability of the information that's included on the report. And then finally, when that review is satisfied, I will issue a

report.

Q. Okay. And that was the report that was introduced into court today?

A. That's correct.

Q. And have all your opinions today been given to a reasonable degree of certainty, scientific certainty?

A. They have, yes.

MS. KIMBRIL-PARKS: Nothing further, Your Honor.

THE COURT: Thank you.

Mr. Thomas?

MR. THOMAS: Nothing further, Your Honor.

THE COURT: Okay. Thank you.

Thank you very much. You can step down. You're excused.

THE WITNESS: Thank you.

(Witness excused)

THE COURT: Call your next witness.

MS. KIMBRIL-PARKS: Sergeant Timothy Bogue.

THE COURT: All right. You're good right there. If you would, please raise your right hand.

(The witness was duly sworn.)

THE WITNESS: Yes, Your Honor.

THE COURT: Be seated, please.