

Welcome to the forensic toxicology podcasts. I am Dr. Sanela Martić, professor at the Department of Forensic Science at Trent University. This podcast is about alcohol. This podcast, we're going to look at two cases that are specifically dealing with alcohol testing in field and on-site using breathalyzer. Let's look at the case number one, R v. Paszczenko, 2010, ONCA 615 CanLii. So in this case, both Mr.

Paszczenko and Mr. Lima were convicted in the Ontario Court of Justice of operating a motor vehicle while the concentration of alcohol in their blood exceeded 80 milligrams of alcohol in a 100 milliliters of blood. Now the central issue in both cases concerns the manner in which the Crown must prove the facts underlying the four assumptions upon which expert toxicology reports filed in over 80 cases where the breath test has not been administered within the two hours of the driving incident are routinely based. So let's look at these four assumptions in the jargon of these cases, the four assumptions are commonly referred to as one, no bolus drinking i.e. no rapid consumption of large amounts of alcohol shortly prior to the incident, two no consumption of alcohol between the incident and the breath test. Three, an elimination rate of ten to 20 milligrams of alcohol in a 100 milliliters of blood per hour last for the assumption. A two-hour plateau after drinking where the rate of elimination does not change. Let's split Mr.

Paszczenko, and Mr. Lima's cases. What are the facts in the first case is that on February 23rd, 2005, Mr.

Paszczenko, was involved in a rear-end collision with another vehicle in the Islington Avenue/Queensway area of Toronto, and was arrested after the attending police officer observed the usual symptoms of drinking, such as strong smell of alcohol, unsteadiness on the feet, bloodshot and glass eyes and slurred speech. After speaking with the duty counsel, Mr.

Paszczenko provided two samples of breath, registering 120 milligrams and 122 milligrams of alcohol in a 100 milliliters of blood. Now certainly that is over 80 milligrams. The samples were not taken within two hours of when the offense was alleged to have occurred, though, which should be a standard practice. Because of this, the crown was not entitled to rely upon the presumption set out in s. 258(1)(c) of the Criminal Code, R.S.C. 1985, c. C-46 that results of the breath tests for proof or the concentration of alcohol in Mr. Paszczenko blood at the time of occurrence. As a result, the crown tendered an expert toxicology report that projected his blood alcohol content back to have been between a hundred and thirty and hundred and eighty at relevant time. Again, there were four assumptions as stated before a trial. The defense argued that the court could not rely upon the expert's report because assumption 3 and 4, specifically, a rate of elimination of alcohol from blood which may range between ten to 20 milligrams of alcohol per 100 milliliters of blood per hour. And assumption for a plateau of the lower BAC estimation had not been proven. Very interesting that in this case of Mr.

Paszczenko, these two assumptions were challenged. Let's look at the facts in Lima case on July second, 2006, Mr. Lima was arrested by police officer on St. Clair avenue west Toronto after failing the breath test administered through an approved screening device, Mr. Lima also exhibited common indications of drinking and driving. There was an odor of alcohol on his breath. His eyes were glossy and his speech slightly slurred. He was taken to a police station where he provided two samples of his breath into an approved instrument, registering readings of a 118 or 103 milligrams of alcohol in 100 milliliters of blood. Hence, certainly well over 80 milligrams in 100 milliliters. Now, because of the need to contact and permit Mr.

Lima to speak to a Portuguese language duty counsel, the tests were administered more than two hours after the occurrence. In his case as well, the crown could not rely on the s. 258(1)(c) presumption. Again, the crown looked for an expert toxicological report in accordance with the S6 5.37, it projected Mr.

Lima BAC to have been between a 110 to 106, at the relevant time. Again, the four assumptions here. Number one, no rapid consumption of large quantities of alcohol beverages shortly prior to the incident, commonly referred to as snowballs, drinking. Assumption number two, no consumption of alcohol beverages after the incident and before the intoxicated and 5 thousand C test. Assumption three, a rate of elimination of alcohol from the blood rating from ten to 20 milligrams of alcohol in a 100 milliliters of blood per hour. Last assumption number four allowance for a plateau of after two hours when using the lower rate of alcohol in relation. Now we can see that in both of these cases, there is an issue in not using a breathalyzer test within two hours following the incident. And you can see how even with the

hardcore breathalyzer numbers one can be challenged, especially when it comes to toxicological interpretation. It's an ideal case showing how BAC or blood alcohol, what those iterations could be challenged and how if you want to estimate the BAC levels at the time of the incident, there are several assumptions to be made. In order to do that. What you need to know about the new impaired driving laws published by CTP news on December 18th, 2018. Police officers across Canada cannot demand a breath sample from any driver they stop. Let's take a listen. Tough new drunk driving rules are in effect this morning across Canada. The rules give law enforcement new powers when it comes to testing drivers. Ctp is Angie. Seth has more on this story, Angie Wright, as the holiday season is kicking off, people are going to parties. We're seeing stricter laws. What can you tell us about these laws that everybody should now be aware of? Yeah, exactly. I mean, as you said, stricter laws being put in place, Morsi a good morning. Well, the new worlds are aimed at curbing injuries and death and they're meant to help police catch drivers operating motor vehicle with more than a legal limit of alcohol in their bloodstream, the new law bumps up the maximum penalty. So here's a look at the breakdown. The first offense now carries a mandatory minimum, one hundred, ten hundred dollar fine. A second offense will put you behind bars for a minimum of 30 days. And the third, which being a more serious offense now means a mandatory minimum, 120 days in imprisonment. In addition with the new regulations, officers no longer need reasonable suspicion to be able to demand breath at samples from drivers. And there are penalties. If a driver refuses, it is a demand. So you have to do it. And it was actually consequences if you refuse. And it's the same consequences, consequences that are in the low rate now, it's for refusal. So it's an immediate 90-day driver's license suspension. It's a 70 vehicle impound. It is the criminal charge of refusal that can carry up to \$2 thousand in fines as expected met a civil rights organizations have already sounded the alarm about the new rules that Canadian Civil Liberties Association has expressed concern about how the mandatory alcohol screening could unfairly affect racial minorities, who they say are often singled out by police criminal defense lawyer Karen. Karen Joe K1. It says that she's concerned about how this process violates rules about search and seizure and unlawful detention. And she's she said she's ready to test the new roadside rules and courts. The issue will be as criminal defense lawyers bringing it to the courts and challenging and constitutionally only the courts can make that decision. Justice Minister Jody Wilson rebuild has also said she has every expectation that the law will be challenged in the courts, but she added that she does think it's in line with the character of the Charter of Rights and Freedoms, Mircea. Okay, drivers. How are they reacting to this? Well, it's interesting and it's actually a bit of a mixed reaction. But I think a lot of them are saying, well people are eager. They want to see the drunk drivers off the roadways. Take a listen. I think it'll make them thing twice and put the key somewhere else. I think it's good at it just goes to show that they're trying to do something. I think it's gonna make things slightly safer because a lot of people drive when they're drunk and this will help get rid of that a little bit. I think people will be more cautious about it. And that's why I think that's sort of the main issue here, making sure that roads are safe for these new rules come as provincial police reported that between the beginning of 2018 and the middle of November, officers get this labor than 7 thousand impaired driving charges, according to federal statistics and average of almost four people die in Canada daily because of drunk driving. Trying to police spokesperson sergeant Brett more said police miss a lot of impaired drivers. And that's because some people are pretty good at masking their impairment as for what kind of effect that these rules will have on the role of Walmart. Cia numbers will have to tell. What's also important to note here is that this new system, these new rules are already in place and over 40 countries around the world. Okay, Angie, thanks for that. Youtube. Audio really nicely identifies the topic of use of on-site infield testing for alcohol bylaw enforcement. Let's consider our second case R versus Goudy 2007 S KPC 42. CanLII. What's the premise of this case? The vehicle was a four-door truck. The accused was behind the wheel. There was a female passage in the backseat and a young male passenger in front. The constable noted a strong smell of alcohol on the windows open.

On his approach. He requested a driver's license indicating that the stop was for speeding. His partner, the auxiliary constable informed him that a glass of liquor had spilled. The constable was of the opinion that the accused was holding onto the door to study himself. Well, he examined the driver's license. He noted that the accused was a novice to driver, which meant that he was subject to a condition of the license that prohibited any presence of alcohol in his system. The constable made a statement to the accused to the effect he had alcohol on his breath and said that he wished to take a breath sample. He escorted the accused of the police car where they were seated at 1:26. Constable made a roadside screening tests demand at 1:32 and received a reading of failure at 1:41 on an ALCATEST 74 dash ten instrument. The constable indicated that he had made a call to the accused parents and possibly also to his Sergeant prior to the test. This evidence was further clarified on cross-examination and it would appear that the call to the sergeant may have been made at a later time. In any event, last one phone call not directly relevant to the investigation was made. The call or calls were, however, for the benefit of the accused regarding the security of his vehicle, The constable on cross-examination indicated that a reason for the delay in the roadside test was the possible presence of fresh mouth alcohol in

the subject due to the observation of open liquor and vehicle, it was immediately after the failure of the test that the rights to counsel under Section ten, bracket B of the Charter, were given. The constable told the accused upon the failure that he would have to be taken for a breath test. He proceeded to read a formal demand for breath test to which the accused indicated that he understood the Constable arrest at the accused for driving while over 0.08, and then it gave the standard police caution regarding statements. Cst. Guider then made arrangements to go to the Carlisle detachment of the Royal Canadian Mounted Police, which was 60 to 70 kilometers away. They proceeded in, arrived outside the detachment at 2:34 AM. The constable indicated the drive would ordinarily take 35 to 40 minutes before departing the location by the roadside. The constable phoned his sergeant for the purpose of having him watch the truck being left at the side of the road, that could have taken more time. Upon arrival in Carlisle, constable Guider stated that he again went over the right to counsel and inform the accused that he would have access to a private room to phone, and we'd have access to four numbers, presumably of lawyers. He stated that the accused declined to call a lawyer. The breath samples were provided and a certificate of analysis and notice to produce the same were prepared and served on the accused. Finally, the Certificate shows that one sample was taken out 2:41 AM with a first reading of a 130 mix of aquaculture for 100 mls of blood. The second sample at 3:02 AM, with a recording of a 120 million of alcohol in 100 milliliters of blood, certainly still over the limit. Now two expert opinions were filed by the consent of the counsel, and it was agreed that the court could weigh the opinions expressed in the written forms from these experts in the same manner as if the expert had given evidence in court, although of course, there could be no cross-examination. Both expert reports were based upon the size and weight given by the accused in evidence and consider the pattern of alcohol consumption based on the evidence provided by the accused in court, they also considered the actual breath test analysis results, which were a 130 mg% to 0241 hrs and 128mg% at 0302 hrs. The first opinion report was filed by the defense and was written by Dr. Russell Rockerbie, a well-known expert on the effects of alcohol consumption and in particular of absorption and elimination of the same compound in the body. He provided an analysis of the accused expected blood alcohol readings based upon the body mass and the pattern of consumption that was provided by accused key discounted the pattern of consumption and gave the opinion based upon a steady rate of ingestion and elimination of alcohol and standard rates. And based upon the accused evidence, his blood alcohol reading would have been between 12 to 54 mg per 100 milliliters of blood, which is well below the legal limit. Dr.

Dr. Rockerbie also provided an opinion of the number of ounces of alcoholic beverages that the accused would have had to consume between 530 PM and 1 AM in order to achieve the reading obtained from the test stated in the certificate file, did the evidence the amount required in his opinion, would have been 18 ounces of alcohol to produce that reading that was presented in the test report was also provided by Ms. Richelle Booker of the forensic science lab of the RCMP at Winnipeg. She provided two opinions based upon the same criteria as Dr. Rockerbie and she had the benefit of reading his report prior the preparation of her own report. What does that say? Although I found the estimate initially difficult to understand, it is an estimate based upon the lower of the two actual readings of the tests. If you take the base reading of 120 mg% at 302 am, and then extrapolate back to the actual time of driving to subject actual reading of alcohol at that time, which is up at around 01:20 AM. It should be between one hundred and thirty, to hundred and forty seven mg per percent. Interestingly, that while this calculation was done by Mrs. Booker, this kind of calculation was not done by Dr. Rockerbie. It was well justified to conclude that the absolute consumption of alcohol between the driving time and breath tests sometimes later, that the expected actual level of alcohol in the bloodstream would not be less than the readings obtained in its final report. Now, one last piece to this case, is that Mrs. Booker also gave an opinion of what the accused blood alcohol readings would have been at the time of driving at precisely 120. If of course one accepts the level of consumption consistent with presented evidence. This opinion plays the reading at 13, to 72 mg%, also below the legal limit. It is to be noted that the range of her estimate is definitely wider than that provided by Dr. Rockerbie but essentially consistent with his reading or his estimation in agreement that the blood alcohol reading would have been below the legal limit in order for this estimate to be accepted by the court, the factual basis of which it is based must be accepted as a fact by the court. Board experts commented on breath testing device. Dr. Rockerbie made a statement regarding the limitations and margin of error in various alcohol testing devices used by police agencies. And at the same time, this is Booker who had the benefit of reading Dr. Rockerbie report prior to writing her own and gave a rebuttal of his statement. But in the absence of cross-examination of these issues, it was impossible for the court to reach any valid conclusions on the general accuracy of the instruments used for testing on the night in question. Based upon these reports. It's very interesting how the second case clearly shows how timing of breathalyzer tests makes a big difference. How instrumentation use. Sometimes those devices have limitations and also specific margin of errors. And it also shows you how the actual reading by using a breathalyzer test could be directly linked to the blood alcohol level, and even more than that could be extrapolated back to estimate the amount of alcohol at the time of incident, for example.

This is really unique to alcohol and not too many drugs you could do this with. But alcohol is a chemical that we know very much about and we know about its absorption and elimination. And we can certainly backtrack to determine or estimate consumption at the time of the incident very nicely. This concludes our forensic podcasts on the topic of alcohol. I hope you enjoyed it.