Primary Care Cures

Episode 132: Travis Christofferson

Ron Barshop:

Welcome to the only show dedicated to a new way of delivering healthcare. This new model has no name, but let's go ahead and call it direct contracting or digital first care. The new way centers on opting out of the games bigs play with their rigged dice, their crooked game board and their purchased referees. And if you're looking for a future where everyone wins, that's the doc, the consumer, the employer, and with assured amazing outcomes and measurably lower costs that are ranging up to 60%, you're in the right place. I'm Ron Barshop, your host. I'm glad you're here. Welcome to the new healthcare economy.

Ron Barshop:

I love reading Fast Company, but they like most magazines get healthcare wrong, because they started off their last article about healthcare with this sentence, the three primary stakeholders in healthcare, medical providers, insurance carriers, and patients have opposing goals. The problem with that sentence is it's not true. When you answer this question, sentence one, who are the stakeholders? And you add in insurance it's like saying, "How do you start to repair this old house? By the way, it's termite infested, it has mold, it's haunted, and it has radon ratings off the chart. Well, just pass onto the next house." So Ron Fast Company, three primary stakeholders are the providers, the patients, which I like to call consumers, and employers.

Ron Barshop:

It's a true new way next gen healthcare. Carriers will be an option for employees, but do you really want a high deductible plan costing you tens of thousands to you and your family or free. No deductible, no copay, no premium. So employees are migrating away from carriers when given a choice between free and high deductible plans. No shock there. So new way care offers a PPO, an HMO, and maybe a third option called DPC or direct contracts. So those options are giving people pause to leave the old brand. Not everybody selects direct contracting right away until they hear how wonderful it is at the end of the first year. It takes some time to migrate away.

Ron Barshop:

Well, let's take out the carriers out of that three person solution of how to fix healthcare because any tech solution for the old sick care model that includes these giant carriers, well, it's going to just perpetuate a patchwork solution, meaning you're never going to build a quilt. You're just going to patch a quilt. You can't patch a termite infested haunted multi-property. Just let it rock crash on its own way. Opt out, move on. Better start rebuilding fresh. Brand new primary care and healthcare systems like we're seeing in east Texas, listen to Rachel Means interview with me last year. Colorado look how the rebuilding that. Listen to my interview with [Auradial 00:02:09] or with Nextera, Clint Flanagan.

If you're a high-tech company you've already engaged with Crossover Health or Premise Health. If you're Apple you've hired One Medical. If you're a Fortune 100 you've probably hired Medici. There's a one in three chance of that. And if you were Walmart, you've hired 98point6. The list goes on. ProactivMD, which is in Carolina and Indiana. So 25 million people in America, by my count of just who's been on my show are sidestepping the bigs to enjoy lower costs, better outcomes, and 40 to 60% lower ER visits. Lower hospital admissions and way shorter hospital stays. So we've got a happier consumer with access to this digital first preventive care and employers can now tinker with actual retention and attraction and engagement tools. Direct contractor, remember it's free. It's a great tool for healthcare.

Ron Barshop:

And I speak from four years of personal experience as an employer in this ecosystem. Now not to mention the pharma costs lower 60 to 80% in overall spending on the healthcare spend, which is usually after labor the second largest spend. Is dropping 40 to 60% and that's not an exaggeration. Because everybody wins when healthcare is mostly flat and fixed. And the movement that is replacing it that has no name yet it is here to stay and it's growing fast. Is it too good to be true? Just listen to the show. Everybody I mentioned above has been on this show. Travis Christofferson is the author of Curable. And when we talk about today how we fix healthcare he has some very interesting ideas in this book. He's a full-time science writer and founder of a cancer charity based in Rapid City, South Dakota, Medical City, USA, right, Travis?

Travis Christofferson:

That's right.

Ron Barshop:

Well, welcome to the show.

Travis Christofferson:

Thanks for having me, Ron. Great to be here.

Ron Barshop:

I want to get the premise of your book right, because I read it actually twice. So I liked it that much. So doctors have this massive burden between the 4,000 procedures and the 6,000 drugs to treat illness. And I'll add, it takes 14 years once evidence-based discoveries flow into the standard of care. So that's your first premise, right? Is they have this massive burden.

Travis Christofferson:

Yeah. Yeah. If you just look at the tenure of healthcare on the planet it started obviously very simply and doctors had very few treatments to go off and they couldn't envision than what we have today with that number of drugs procedures that just the overall complexity is nothing that we've dealt with. So the premise is that this complexity has gotten so great that the system has failed.

I want to jump in, because I don't want to give it away because the punchline is amazing. So the scores of lives are lost needlessly because of the complexity that they're in. And there's a third premise I'm going to jump in with in a second. So you want to talk about?

Travis Christofferson:

Yeah. The overall inefficiencies, because of the complexity, we still operate under the sort of the ethos Hippocrates set almost 2000 years ago that a physician's judgment matters more than any external measurement. And if you look at the history of medical care that ethos persisted and even persists today. Where there's so such a vast amount of complexity that doctors are operating under this cloud of uncertainty under most conditions, and the system does very little to help narrow those constraints to guide them to the best practices.

Ron Barshop:

Well, I like your solution, but I have a problem with it. Your solution is I'll call it Billy Bean, Oakland A's style, Money-ball artificial intelligence in healthcare combined with epigenetics and genomics. Is that sort of your broad brush solution?

Travis Christofferson:

Yeah. Yeah. In the book I used the example of the Oakland A's, because it just correlated so well with medicine, where traditionally baseball had talent scouts to pick players. And it was thought that this position was steeped in tradition and acuity of sort of instinct. And Billy Beane just switched to a completely different data-driven approach. He fired the talent scouts. They thought it was a complete joke. The Oakland A's were going to fail and they used this to find undervalued players. The players at sort of major league baseball had cast aside and then it works. They had, I think the third budget from the bottom. Three times less than that of the New York Yankees. And they started winning and they've done this every year. I'm sure they've modified their approach, but that's sort of the corollary to the fix that you're talking about.

Ron Barshop:

Well, I have a problem with, and I'll talk about in a second, because there was an article that came out in JAMA Internal Medicine this week that correlates exactly with what you've talked about in the book. But before you do, I love this combination of words you came up with. You're hoping that this AI is going to replace Dr. Pattern fallibility of human intuition. I love that.

Travis Christofferson:

Yeah. Yeah. When you look at the way... and this just doesn't apply to doctors, this applies to human beings in general. There's a patterned irrationality. And in the book I looked at two psychologists who sort of revolutionized this branch of psychology. Daniel Kahneman, and Amos Tversky. And they just showed how we have this pattern sort of set of biases and heuristics that we operate under. And there's so many examples of this in medicine. AI is one branch where right now of course it's being incubated. It's new where radiology scans it's showing a clear benefit, but that's just the beginning. And the intuitions will come like this more and more.

So what I want to do is I want to read you, which is the most boring thing in the world, just a paragraph or two from this JAMA article, because basically what it says is that, infections in hospitals is the leading cause of death in hospitals and hospital acquired infections, which you address in your book. But the largest EHR company in America right now is Epic Cerner, which is within in one out of every four hospital in America. So I'm sure you've heard of Epic. And they just set up a de-identifying system for artificial intelligence and algorithms. We'll call it algorithms, not artificial intelligence to find signs of sepsis, okay? And here's what they found. Is that when the doctors missed it so did Epic 93% of the time with their algorithm. How about that?

Travis Christofferson:

Yeah. Yeah. Like you said back and of course this isn't new, and this is this first foray of using AI in that diagnostic capacity. And there'll be stumbles like this, of course, but hospital acquired infections you can take two branches. You can go forward with things like AI to try to identify that early on, or you can take a step back and I do this in the book. We have these incredibly undervalued, low cost sort of procedures that are unglamorous and sort of get lost in the system. And just simple hand washing where doctors are shown to be about 80% compliant. And that contributes these 2 million annual hospital acquired infections where there's about 90,000 deaths a year and the list goes on and on. A good example of this is Brent James in Intermountain Healthcare looked at his EMR and found a huge variation in treatment for the administration of antibiotics before surgery.

Travis Christofferson:

Some doctors were giving it 48 hours before surgery. Some were giving it two hours before surgery. Some 24 to 48 hours after surgery. Then he looked at the optimal time to give it and the EMR gave him the exact time. There's a dramatic reduction in infections when doctors gave it two hours before surgery. And this has never been done. Doctors just went off instinct or intuition and was given just around the time of surgery. So that's an example of where you can look at this blocks of data, narrow down a best practice and save countless lives and drive down costs. Because if someone gets an infection, obviously that's a huge outlay for medical costs going forward.

Ron Barshop:

You also talk about Atul Gawande sort of created the master checklist for surgery that really only a very small percentage of the hospitals are using today, but it reduces everything. The cost of surgery, the after cost of surgery, the recovery is dramatically faster and these infections don't happen. So what do you think is holding up healthcare from adopting a simple thing like a checklist?

Travis Christofferson:

Well, the feeling I get just doing the research, writing the book, talking to doctors is there's a complexity bias in people. People like the glamorous new things, robotic surgery, next generation antibiotics, genetically engineered CAR-T cancer therapies. And of course the cost of these are astronomical. And this comes at the expense of these incredibly unglamorous, low cost

things like a surgical checklist. And when you institute those, there was a study when he did it in hospitals around the globe and the hospitals that adopted the surgical checklist the surgical complication, medical error went down 47%. So that is way more dramatic than any drug, any procedure that we can come up with. It wouldn't cost probably hundreds of thousands of dollars. So I think it just comes down to this internal bias that humans have towards looking for the next best thing. It can be expensive these very simple unglamorous things.

Ron Barshop:

Let's talk about the poop milkshake. How about that? The Catherine Duff talked to... you told the first story and she found that a fecal transplant. We know already that a fecal transplant, it's called a fecal transplant, will eliminate C death for most of the thousands of deaths that take it on. Because it's basically a miracle cure, it costs 50 bucks, it's just basically sterilized donor poop and an enema shake. And then Catherine Duff spoke at a conference. You talked about in the book. There are 150 people there that were all doctors and white goats, some researchers.

Ron Barshop:

She was the only one that was actually part of the public. And they were about to have to take on, I think you said something like 43 pounds worth of paperwork they were going to have to do for investigational trials of milkshake poops that we know work. And she said, "Stop, stop. This is not helping anybody. It works. We know it works. We've lost all sense of proportion here." She started crying and then they just took completely put the investigational trials off the table, I believe. Can you tell that story a little bit?

Travis Christofferson:

Yeah. Yeah. That story to me really highlighted sort of the internal biases and problems with healthcare, because it had been known actually since 1958, there was a surgeon in Denver, Ben Eisman that just had a hunch that, and I think antibiotics were brand new at this time. They just started being mass produced in the early '50s. So they use them pre-surgically to avoid terrible surgical infections, but he noticed a certain percentage of his patients when they recovered would have dysentery. And it was counterintuitive, but his hunch was that antibiotics are wiping out this microbiome. And back then the microbiome wasn't even fully appreciated. And this would allow for pathogenic bacteria to take over and cause infection.

Travis Christofferson:

So his hunch was, they called it, I'll try to restore the balance of nature. So he went and collected a poop from the maternity ward because he figured that the women over there wouldn't have had antibiotics and were healthy. And he gave them to some of these patients that had dysentery from the antibiotics and that it was 100% cure. They all recovered pretty much instantaneously. And this had been known for decades before some doctor in Australia, Borody actually started applying it to sick patients.

Ron Barshop:

Wasn't there some story in either the Arab world or Africa where they were eating camel poop when they had dysentery.

Travis Christofferson:

Yeah. Yeah. That actually was the first discovery. That goes way back to world war II. There was a terrible outbreak of dysentery with the German troops in north Africa. And they flew in microbiologists, chemists, doctors, and they couldn't figure out why the local population of Arabs was not getting sick. And when they tracked them they found out that they were getting sick. And when they did they'd immediately walk behind a camel. And when it deprecated, they pick it up and eat it. So they isolated the organism responsible for that. It was bacillus subtilis and they dried it, made it obviously more palatable. And it was remarkably effective at out competing dysentery. And this is pre-antibiotic era. So that was known. Vets have known this for a long time. If you talk to vets, they've been doing fecal transplants for very, very long time.

Travis Christofferson:

So all this was known and what happened was the medical community had no way to deal with it. Nobody wants to mix poop in a blender, right? You go to antibiotics first. So it became the sort of underground do it yourself network on Google. And that's where Catherine Duff actually found out how to do it. And the reports are they were instantaneous cures. So finally they did a trial and found out it was 94% effective. And the people in the antibiotic group had to had it compared to antibiotics which are 75% effective in the frontline and then dropped dramatically after that. So every year patients go through this ended up with M stage C death and 15,000 people die from this. It's acquired in the hospital almost all the time. So this incredibly effective care was there, but NIH had no idea how to deal with it.

Travis Christofferson:

They kept bringing up these long-term consequences. Maybe if an overweight donor the patient could become overweight 10 years down the road. And Catherine Duff stood up in the meeting and just said, "People are dying. I don't think they care if they're going to gain weight." So the risk reward ratio was just completely forgotten. They were going to regulate as an investigational new drug which eventually would just stop it. And the inertia from the ground swell of people using this to cure themselves is what eventually overturned the system. But it's a wonderful example of how... we just do everything. There's so much tradition in inertia and nobody wants to step outside the bounds and become the first one to be doing this crazy procedure.

Ron Barshop:

The funny thing is they had this randomized clinical trial, 94% of the people taking the poop enema were better. And only, let me see, a third of the people taking the antibiotic got better. So they just stopped the trial midstream and switched everybody over to the poop enema, because it was crystal clear that it was winning.

Travis Christofferson:

Right. And they were still going to file it under an investigative new drug and just bog it down in so much paperwork that it wouldn't be available to people. But now I think, it's available. It's become mainstream now.

Ron Barshop:

That's awesome. All right. So investigation on new drugs, we're going to talk about that next. There are 6,000 drugs that are approved. There are six molecular pathways I learned to each drug. So they all have six to the power of 6,000, which is countless millions of possibilities of how they can heal us. So you say in the book that we don't tinker enough to repurpose existing drugs like we have with, for example, Metformin, which gladly I take. One of our previous guests that it's actually have age reversal properties, and he's on the short for the Nobel Prize in medicine. So I take Metformin every day, but it gets credit for actually saving more from cancer than any other drug in America according to Dr. Watson. He's no small fry.

Travis Christofferson:

Yeah. Yeah. That's another one of the things in the book there. These low cost things that sort of just get left behind. Drug repurposing falls right into that, simply because there's no financial incentive. In the case of Metformin, it's a generic, it's off patent, it's a nickel a pill. There is no incentive for anybody to run it through trials to prove that it's got off-level use or efficacy in other disease states beyond type two diabetes. So there is... You're saying?

Ron Barshop:

Yeah. There's a stat it reduces breast cancer by what? Almost 40.

Travis Christofferson:

38%. Yeah. Yeah. Women found to be taking statins near the time of a breast cancer diagnosis had a 38% reduction in death rates.

Ron Barshop:

Wow. But it's a certain kind of statin. It's not every statin, right?

Travis Christofferson:

Right. It's a lipophilic statin and there's two classes. There's hydrophilic and lipophilic. So it's the common ones, like atorvastatin and simvastatin. This is where like the Oakland A's find these undervalued players and are dramatically undervalued to their value, under costs of their value. And there's all kinds of things like this in medicine and drug repurposing as a huge part of that.

Ron Barshop:

And then what about Ketamine? What is Ketamine?

Travis Christofferson:

Ketamine, that's another one. It's a drug that was originally got approval by the FDA for anesthesia. And it's found to have a really dramatic effect in depression. It's very well-documented. There hasn't been a large scale clinical trial, but there's enough non-traditional data out there. Very safe. And the kind of thing that happens, again, it's a generic. So it's very cheap, but the pharmaceutical industry will catch on that. "Okay. That has efficacy. How can we get a new patent on it?" So what, I think it was Janssen or J&J patented one Icmelor Rivets.

Travis Christofferson:

So there's a left-handed version and a right-handed version. And they patented one version and then ran it through trials and got FDA approval. And I think it's... well, this is just dramatically more expensive than the generic Ketamine. And the generic Ketamine may be better, right? That the version of left and right hand. So that's the kind of thing that just drives healthcare costs when we have these undervalued things that we just don't utilize.

Ron Barshop:

I read from your bio, I'm getting off book now, but I read from your bio that you're an expert on ketones. What the heck are ketones?

Travis Christofferson:

So ketones is a very interesting sort of hybrid switch we have in our bodies and you've probably heard of the ketogenic diet. Okay. What ketones are is when you go into a fasted state and you're not in-taking carbohydrates, your body will switch to burning fat. And to replace circulating glucose you'll generate ketone bodies. And they have some very interesting properties with regard to diabetes and insulin resistance, which about over half, about 60% of the US population has some degree of insulin resistance from a primary care perspective. It's one of the persona non grata of health. It's one of the biggest driver versus chronic disease. And ketone metabolism bypasses all that pathology insulin resistance and enters directly into the Krebs cycle past all those glucose blockades and restores metabolism. So it's a very underappreciated and has tremendous potential to treat people with our chronic disease population.

Ron Barshop:

I was a little surprised the last two weeks. I started intermittent fasting 18 hours and often six hours on and I lost 10 pounds the last two weeks. I've never lost that much weight that fast in my life.

Travis Christofferson:

Yeah. And again, low cost, incredibly powerful. Intermittent fasting or just restricted eating windows. There's a good study that just came on and alongside insulin resistance one of the core drivers of this chronic disease epidemic we have is chronic inflammation. And when you restrict yourself and do intermittent fasting or eating window, you reduce the amount of monocytes circulating your body. Those are the immune cells responsible for inflammation. They drop dramatically. Your gut biome rearranges. So there's some really profound effects just by these simple acts like intermittent fasting and restricted eating windows.

Ron Barshop:

So you're also talking on your website about metabolically active cancer treatments and you've inhabited foundation for that. What is that all about?

Travis Christofferson:

That goes back to my first book, Tripping Over the Truth, which looked at this group of scientists that were really focusing not on somatic mutations, which is where almost all of the pharmaceutical research goes towards now, targeted chemotherapies, and looked at the metabolic, the arrangements of cancer cells. A prime example of that is when you get a pet scan,

what they inject you with is radio labeled glucose or sugar and there's a huge uptake by cancer cells of the sugar. So they feed off sugar. They alter their metabolism. It's called the Warburg effect and they suck in sugar. And that's what drives our growth.

Travis Christofferson:

So these group of scientists were claiming that this not only is one of the prime drivers of cancer, but could ultimately be the first cause beyond mutations to DNA. So that's what this looks at. They're very, again, back to these simple low cost ways of treating cancer. Ketogenic diets are part of the therapy, because they switch again away from blood glucose towards ketone bodies. And there's a lot of other drugs that can be repurposed. Metformin is another one that change the cellular metabolism towards sort of an anti-cancer state.

Ron Barshop:

So what is your next book going to be about?

Travis Christofferson:

Oh, man, Ron. I don't know. I'm still recovering from the last one. It's really easy to get excited about all this stuff. And the things you talk about with these changing the way you restructure primary care global copulation, there's just so many good innovative things going on in medicine and healthcare that I just keep watching. As a journalist you just watch and find interesting stories and see how this changes. I'm sure I'll get inspired at some point.

Ron Barshop:

There's nothing to Google when you do what I talked about at the top of the show. There is no direct contracting Googliciousness about it. We don't have a name for this movement. We don't have an association. There's no academic studying it, except there's one. I got a call from a guy from Colorado about a year ago. I never heard from his study, but there's no books written about it. I've written a book called Healthcare is Fixed. It taps on the edges about it. But I think you and I need to write a book about this new way that's engulfing America. 25 million people, that's not shabby. And if you do the math, there's at least 25,000 providers providing that care. So this is something important that's changing everything.

Travis Christofferson:

Yeah. You look at capitalism and you look at these disruptive companies like Uber, something as simple as that or Amazon, you find ways to get people what they need better and cheaper. And you look at the American healthcare system and there's this one graph that's so telling. If you look at the longevity versus healthcare expenditures the United States is so far in dead last compared to the rest of the developed world. So it's clear just from that we are doing something tremendously wrong. We're spending a crazy amount of money for terrible outcomes. So under that scenario, there a tremendous amount of room for disruptive innovation.

Travis Christofferson:

And that's what gets me excited. Just something simply as realigning incentives. The fee for service models have balled us into this terrible place. Now, if we just realigned incentives, pay doctors a salary like the Mayo clinic or Copulation where they get a lump sum per patient, and

then the whole primary care system is incentivized to save money and do better for their patients. So that gets me excited. I think there is path forward. We just have to get past this terrible inertia that we're in right now.

Ron Barshop:

I can so nerd out on primary care, but the value-based care model, the capitation model is supposed to be the answer. And I found that the experts at CMS can't answer the question, does it save money? But that somebody like Chen med I've had a Chris Chan on the show. Gordon Chan, I'm sorry, in the show and it turns out that we have full risk models for value-based care and we have non-full risk. Well, only about 5% of the value based are full risk. And that does save enormous amounts of money. But the other models don't. It's just more of the same. And I'm the head of Blue Cross Blue Shield in Ohio actually was quoted as saying, "Fee for service and value-based care are mostly the same." But this direct contracting is really a whole new model, because it takes out the PBMs, it takes out the big insurance companies. You don't need them when you direct contract with the ecosystem locally.

Travis Christofferson:

Yeah. Just too many middlemen. Yeah. And there's other avenues we can look at from the system-wide level towards the end the amount of chemotherapy that we give compared to other companies when it's been proven over and over that it does not extend life. And in fact, in the book we talk about the patients that have more and immersive sort of dialogue with doctors and nurses and opt out of anti-life chemotherapy actually live two months longer and they have the last few months better with their family, they feel better. So we do these crazy things where they're just incredibly expensive that have no data justification whatsoever. Prostate cancer is a perfect example.

Ron Barshop:

Exactly. I was about to bring that up.

Travis Christofferson:

Yeah. Yeah. And again, this is, doctors are operating under this cloud of uncertainty all the time where we don't have a lot of trials to compare procedures to each other. So people are dying and in primary prostate cancer there's typically five treatment options, watch and wait surgery, and then three different types of radiation that all vary in cost. The most expensive being proton beam, which is about 100,000. And no doctor can tell you which one is better. Is watch and wait better than proton beam or any of the ones in between? There's just no comparative trials. So under our fee for service system, you can imagine which one gets prescribed more and more now. The most expensive one, which is proton beam. So it's that kind of system which encourages that is obviously what's broken.

Ron Barshop:

It just amazed me. I had a friend who had prostate cancer, very early stage one and the wife insisted that they go see the best doctor at MD Anderson in Houston who insisted on proton therapy, which is they're going to make a lot of money on that. And he gets credit for billing a lot and that helps his stature. So when I said, "Proton therapy is not proven to be better than wait and

do nothing." She jumped on me like I had just attacked God. It was apple pie and mother. She was very upset that I brought that up and I said, "I'm just saying. I mean, the evidence is not there that all these therapies are better than doing nothing for stage one." Many people die with stage one prostate cancer that never spreads.

Travis Christofferson:

Yeah. Exactly. Yeah. People are in extremely vulnerable position under that and they look to their oncologists as God at that point. And they form these automatically biases about the reality of the data. So it's an unfortunate situation.

Ron Barshop:

Well, I always ask my guests two questions at the end of every show and this has been a great show. How do people find you, Travis, if they want to connect with you?

Travis Christofferson:

You can direct message me on Twitter. I'm trying to be a little more active on there. My foundation has a website, Foundation for Metabolic Cancer Therapies. Those are probably the two best ways. I try to update those as often as I can.

Ron Barshop:

Okay. And if you could fly a banner over America with one message, what would that message be?

Travis Christofferson:

Well, at the end of the book what it really drilled down to is, epidemiologically, what are the most important factors for longevity in a good life? Most people don't know. Most people assume genetics is a primary driver of healthy long life and it's not. 80% of it is life events, nurture part of the equation. So the biggest of that within the nurture are social. Your social connectedness. So the people you really count on. Close relationships. And the second biggest is social integration. So chatting with people, chatting with a mailman, going to the gym and talking to people just to your amount of social integration throughout the day. In America now we're in such silos and I think loneliness is a hugely caustic thing for people's health and happiness. So the banner would be just simply get out and talk to people. Live your life and be part of the community.

Ron Barshop:

Great. Great prescription for change. Travis, great book. Like I said, I read it twice. It was that good and I look forward to your next one.

Travis Christofferson:

Thanks, Ron. Very much appreciate it.

Ron Barshop:

Bye-bye.

Thank you for listening. You want to shake things up. There's two things you can do for us. One go to primarycarecures.com for show notes and links to our guests. And number two, help us spotlight what's working in primary care by listening on iTunes or wherever you get your podcasts and subscribing. And leave us a review. It helps our megaphone more than you know. Until next episode.