WEBVTT

NOTE duration: ”00:07:55.221”

NOTE Confidence: 0.95085156

00:00:15.315 --> 00:00:16.515 So, when I do a

NOTE Confidence: 0.95085156

00:00:16.515 --> 00:00:17.635 fast, I usually start with

NOTE Confidence: 0.95085156

00:00:17.635 --> 00:00:19.095 a right upper quadrant view,

NOTE Confidence: 0.95085156

00:00:19.154 --> 00:00:20.035 and I like to start

NOTE Confidence: 0.95085156

00:00:20.035 --> 00:00:22.134 in the anterior humeral line,

NOTE Confidence: 0.95085156

00:00:22.275 --> 00:00:23.735 looking for a rib space,

NOTE Confidence: 0.99654925

00:00:24.355 --> 00:00:24.855 and

NOTE Confidence: 0.8973488

00:00:25.555 --> 00:00:27.154 and looking again. We're gonna

NOTE Confidence: 0.8973488

00:00:27.154 --> 00:00:28.435 illustrate a couple of different

NOTE Confidence: 0.8973488

00:00:28.435 --> 00:00:30.480 movements. One is this is

NOTE Confidence: 0.8973488

00:00:30.480 --> 00:00:32.659 so called rocking, looking securely

NOTE Confidence: 0.8973488

00:00:32.720 --> 00:00:34.159 and inferiorly, and this is

NOTE Confidence: 0.8973488

00:00:34.159 --> 00:00:36.320 called fanning, looking anteriorly and

NOTE Confidence: 0.8973488

00:00:36.320 --> 00:00:36.820 posteriorly

NOTE Confidence: 0.9009905

00:00:37.280 --> 00:00:38.800 and rotating sometimes if you

NOTE Confidence: 0.9009905

00:00:38.800 --> 00:00:40.000 need to get between two

NOTE Confidence: 0.9009905

00:00:40.000 --> 00:00:41.534 ribs, but this is a

NOTE Confidence: 0.9009905

00:00:41.534 --> 00:00:42.735 pretty good image. Then I'm

NOTE Confidence: 0.9009905

00:00:42.735 --> 00:00:44.015 sliding up and down to

NOTE Confidence: 0.9009905

00:00:44.015 --> 00:00:45.295 the inferior pole of the

NOTE Confidence: 0.9009905

00:00:45.295 --> 00:00:46.034 right kidney.

NOTE Confidence: 0.78902394

00:00:47.375 --> 00:00:48.815 So that's a complete ride

NOTE Confidence: 0.78902394

00:00:48.815 --> 00:00:49.555 of the car.

NOTE Confidence: 0.8875058

00:00:58.680 --> 00:01:00.140 The next view, since we're

NOTE Confidence: 0.8875058

00:01:00.280 --> 00:01:01.400 in the territory, we can

NOTE Confidence: 0.8875058

00:01:01.400 --> 00:01:02.140 do the subdiphoid

NOTE Confidence: 0.961567

00:01:02.840 --> 00:01:04.280 view. Again, you're putting the

NOTE Confidence: 0.961567

00:01:04.280 --> 00:01:04.780 transducer

NOTE Confidence: 0.930783

00:01:05.160 --> 00:01:06.620 in the subdiphoid region

NOTE Confidence: 0.9562209

00:01:07.000 --> 00:01:08.575 aiming up. Sometimes it's easier

NOTE Confidence: 0.9562209

00:01:08.575 --> 00:01:09.295 to put the hand on

NOTE Confidence: 0.9562209

00:01:09.295 --> 00:01:10.115 top of the transducer

NOTE Confidence: 0.88768435

00:01:10.655 --> 00:01:11.615 and then aim up. And

NOTE Confidence: 0.88768435

00:01:11.615 --> 00:01:12.655 then Antonio is gonna help

NOTE Confidence: 0.88768435

00:01:12.655 --> 00:01:13.854 me change the depth so

NOTE Confidence: 0.88768435

00:01:13.854 --> 00:01:14.354 that

NOTE Confidence: 0.88809276

00:01:15.215 --> 00:01:16.515 it fills the heart.

NOTE Confidence: 0.9686664

00:01:19.215 --> 00:01:20.334 Again, you might find this

NOTE Confidence: 0.9686664

00:01:20.334 --> 00:01:21.875 difficult in a skinny patient.

NOTE Confidence: 0.9427917

00:01:22.569 --> 00:01:23.689 It's very difficult to get

NOTE Confidence: 0.9427917

00:01:23.689 --> 00:01:24.970 a very good window. We'll

NOTE Confidence: 0.9427917

00:01:24.970 --> 00:01:26.009 show you on the cardiac

NOTE Confidence: 0.9427917

00:01:26.009 --> 00:01:26.970 piece where you can get

NOTE Confidence: 0.9427917

00:01:26.970 --> 00:01:28.009 a pressure on a long

NOTE Confidence: 0.9427917

00:01:28.009 --> 00:01:29.450 axis, which looks very similar

NOTE Confidence: 0.9427917

00:01:29.450 --> 00:01:30.350 to this view.

NOTE Confidence: 0.9310278

00:01:37.795 --> 00:01:38.675 The next view we look

NOTE Confidence: 0.9310278

00:01:38.675 --> 00:01:39.555 at is a left upper

NOTE Confidence: 0.9310278

00:01:39.555 --> 00:01:40.515 quadrant view where you can

NOTE Confidence: 0.9310278

00:01:40.515 --> 00:01:42.355 put your hand really almost

NOTE Confidence: 0.9310278

00:01:42.355 --> 00:01:43.795 at the at the bottom

NOTE Confidence: 0.9310278

00:01:43.795 --> 00:01:44.615 of the bed.

NOTE Confidence: 0.96473604

00:01:46.870 --> 00:01:48.410 Looking at the spleen.

NOTE Confidence: 0.9632183

00:01:49.110 --> 00:01:50.310 Again, you're gonna be fanning

NOTE Confidence: 0.9632183

00:01:50.310 --> 00:01:51.670 to look more anteriorly, that

NOTE Confidence: 0.9632183

00:01:51.670 --> 00:01:53.350 stomach full of snack after

NOTE Confidence: 0.9632183

00:01:53.350 --> 00:01:53.850 school.

NOTE Confidence: 0.87157667

00:01:54.470 --> 00:01:55.590 Looking close to your lead

NOTE Confidence: 0.87157667

00:01:55.590 --> 00:01:56.870 fanning, that gets you the

NOTE Confidence: 0.87157667

00:01:56.870 --> 00:01:59.030 left kidney and sliding up

NOTE Confidence: 0.87157667

00:01:59.030 --> 00:02:00.175 to see the the rib

NOTE Confidence: 0.87157667

00:02:00.175 --> 00:02:02.095 shadow or the diaphragm and

NOTE Confidence: 0.87157667

00:02:02.095 --> 00:02:03.535 sliding down to see the

NOTE Confidence: 0.87157667

00:02:03.535 --> 00:02:04.975 inferior pull of the left

NOTE Confidence: 0.87157667

00:02:04.975 --> 00:02:05.475 kidney.

NOTE Confidence: 0.9184809

00:02:06.495 --> 00:02:07.855 A reverberation artifact. Do you

NOTE Confidence: 0.9184809

00:02:07.855 --> 00:02:08.815 have metal in your rib

NOTE Confidence: 0.9184809

00:02:08.815 --> 00:02:09.315 today?

NOTE Confidence: 0.79168785

00:02:10.095 --> 00:02:11.635 I don't know. Some hydronelchros

NOTE Confidence: 0.461771

00:02:11.935 --> 00:02:12.595 or Joshua's.

NOTE Confidence: 0.81668544

00:02:13.375 --> 00:02:14.550 That's a psoas muscle.

NOTE Confidence: 0.9092051

00:02:22.070 --> 00:02:24.230 Supapupic view. Again, you wanna

NOTE Confidence: 0.9092051

00:02:24.230 --> 00:02:25.510 put the transducer right over

NOTE Confidence: 0.9092051

00:02:25.510 --> 00:02:26.790 the pubic symphysis, which is

NOTE Confidence: 0.9092051

00:02:26.790 --> 00:02:27.610 right here.

NOTE Confidence: 0.99103487

00:02:28.470 --> 00:02:29.210 And then

NOTE Confidence: 0.95259374

00:02:29.525 --> 00:02:31.145 looking transversely first,

NOTE Confidence: 0.98511326

00:02:33.285 --> 00:02:35.625 any blood in any free

NOTE Confidence: 0.9032477

00:02:37.445 --> 00:02:39.305 any free fluid will collect

NOTE Confidence: 0.9032477

00:02:39.365 --> 00:02:40.425 behind the bladder,

NOTE Confidence: 0.9608175

00:02:41.285 --> 00:02:43.305 either the transverse or the

NOTE Confidence: 0.9608175

00:02:43.560 --> 00:02:44.680 sagittal view, then you rotate

NOTE Confidence: 0.9608175

00:02:44.680 --> 00:02:46.360 the transducer with indicator towards

NOTE Confidence: 0.9608175

00:02:46.360 --> 00:02:47.340 the head of the patient.

NOTE Confidence: 0.95476085

00:02:47.640 --> 00:02:49.000 Again, the free fluid will

NOTE Confidence: 0.95476085

00:02:49.000 --> 00:02:49.820 be behind

NOTE Confidence: 0.9375076

00:02:50.360 --> 00:02:51.400 in the cul de sac

NOTE Confidence: 0.9375076

00:02:51.400 --> 00:02:52.520 in the female pigeon and

NOTE Confidence: 0.9375076

00:02:52.520 --> 00:02:53.560 behind the bladder in the

NOTE Confidence: 0.9375076

00:02:53.560 --> 00:02:54.060 male

NOTE Confidence: 0.76463467

00:03:01.834 --> 00:03:02.334 Remember,

NOTE Confidence: 0.9500072

00:03:02.955 --> 00:03:04.095 the FAST examination,

NOTE Confidence: 0.97201896

00:03:04.474 --> 00:03:05.435 you are looking for an

NOTE Confidence: 0.97201896

00:03:05.435 --> 00:03:06.875 answer to the question, do

NOTE Confidence: 0.97201896

00:03:06.875 --> 00:03:08.315 I see free fluid? Yes

NOTE Confidence: 0.97201896

00:03:08.315 --> 00:03:09.055 or no?

NOTE Confidence: 0.9970909

00:03:09.610 --> 00:03:10.810 It is either positive or

NOTE Confidence: 0.9970909

00:03:10.810 --> 00:03:11.310 negative.

NOTE Confidence: 0.99923843

00:03:12.010 --> 00:03:13.150 It is not designed

NOTE Confidence: 0.98838156

00:03:13.450 --> 00:03:14.970 to tell you where the

NOTE Confidence: 0.98838156

00:03:14.970 --> 00:03:16.889 fluid is leaking from or

NOTE Confidence: 0.98838156

00:03:16.889 --> 00:03:18.169 why the patient is bleeding

NOTE Confidence: 0.98838156

00:03:18.169 --> 00:03:19.150 in the first place.

NOTE Confidence: 0.883229

00:03:20.330 --> 00:03:21.769 Fluid? Yes, no is the

NOTE Confidence: 0.883229

00:03:21.769 --> 00:03:23.150 question we will answer.

NOTE Confidence: 0.9991106

00:03:36.195 --> 00:03:37.415 This is what a pericardial

NOTE Confidence: 0.99482715

00:03:37.875 --> 00:03:39.315 effusion would look like. You

NOTE Confidence: 0.99482715

00:03:39.315 --> 00:03:40.690 can see how the heart

NOTE Confidence: 0.99482715

00:03:40.690 --> 00:03:41.970 seems pushed to the side

NOTE Confidence: 0.99482715

00:03:41.970 --> 00:03:43.090 by a large amount of

NOTE Confidence: 0.99482715

00:03:43.090 --> 00:03:43.590 fluid.

NOTE Confidence: 0.9420079

00:03:44.370 --> 00:03:45.910 This is a positive fast.

NOTE Confidence: 0.9368229

00:03:46.210 --> 00:03:47.810 Although, the v obtained in

NOTE Confidence: 0.9368229

00:03:47.810 --> 00:03:49.590 this case is a parasternal

NOTE Confidence: 0.9368229

00:03:49.810 --> 00:03:51.410 long axis and not typically

NOTE Confidence: 0.9368229

00:03:51.410 --> 00:03:52.425 part of the fast.

NOTE Confidence: 0.99845

00:03:53.145 --> 00:03:54.265 We just wanted to show

NOTE Confidence: 0.99845

00:03:54.265 --> 00:03:56.045 you what a large pericardial

NOTE Confidence: 0.9955009

00:03:56.345 --> 00:03:56.845 effusion

NOTE Confidence: 0.99585754

00:03:57.145 --> 00:03:58.125 would look like.

NOTE Confidence: 0.9834886

00:04:10.470 --> 00:04:11.830 You will see the liver

NOTE Confidence: 0.9834886

00:04:11.830 --> 00:04:13.510 closest to the transducer and

NOTE Confidence: 0.9834886

00:04:13.510 --> 00:04:14.330 then the kidneys.

NOTE Confidence: 0.9289807

00:04:15.590 --> 00:04:16.870 This is a positive or

NOTE Confidence: 0.9289807

00:04:16.870 --> 00:04:17.850 negative fast.

NOTE Confidence: 0.9688598

00:04:21.005 --> 00:04:22.044 As you can see, there

NOTE Confidence: 0.9688598

00:04:22.044 --> 00:04:23.324 is fluid in the Morrison's

NOTE Confidence: 0.9688598

00:04:23.324 --> 00:04:24.845 pouch, so this fast is

NOTE Confidence: 0.9688598

00:04:24.845 --> 00:04:25.345 positive.

NOTE Confidence: 0.9777305

00:04:26.044 --> 00:04:27.245 The CT scan on the

NOTE Confidence: 0.9777305

00:04:27.245 --> 00:04:28.764 right shows you an intra

NOTE Confidence: 0.9777305

00:04:28.764 --> 00:04:31.005 abdominal fluid collection confirming that

NOTE Confidence: 0.9777305

00:04:31.005 --> 00:04:31.904 you were right.

NOTE Confidence: 0.9626584

00:04:33.779 --> 00:04:34.740 Here you can see a

NOTE Confidence: 0.9626584

00:04:34.740 --> 00:04:36.580 very small dark line between

NOTE Confidence: 0.9626584

00:04:36.580 --> 00:04:37.639 the liver and kidney.

NOTE Confidence: 0.943055

00:04:37.940 --> 00:04:39.380 It may be small, but

NOTE Confidence: 0.943055

00:04:39.380 --> 00:04:41.480 still counts as positive. Remember,

NOTE Confidence: 0.980423

00:04:41.860 --> 00:04:43.560 a fast is either positive

NOTE Confidence: 0.980423

00:04:43.700 --> 00:04:45.300 or negative, not a little

NOTE Confidence: 0.980423

00:04:45.300 --> 00:04:45.960 bit positive.

NOTE Confidence: 0.99553335

00:04:58.654 --> 00:05:00.435 Is this positive or negative?

NOTE Confidence: 0.9771523

00:05:02.490 --> 00:05:04.010 Yes. You know it. There

NOTE Confidence: 0.9771523

00:05:04.010 --> 00:05:05.450 is fluid between the diaphragm

NOTE Confidence: 0.9771523

00:05:05.450 --> 00:05:06.650 and the spleen. It is

NOTE Confidence: 0.9771523

00:05:06.650 --> 00:05:07.150 positive.

NOTE Confidence: 0.99565697

00:05:08.410 --> 00:05:09.550 Positive or negative?

NOTE Confidence: 0.95972717

00:05:11.610 --> 00:05:13.050 Yep. You know it. It

NOTE Confidence: 0.95972717

00:05:13.050 --> 00:05:14.410 is positive. There is a

NOTE Confidence: 0.95972717

00:05:14.410 --> 00:05:15.470 small fluid collection.

NOTE Confidence: 0.9426376

00:05:38.870 --> 00:05:40.230 Here you can see free

NOTE Confidence: 0.9426376

00:05:40.230 --> 00:05:42.010 fluid behind the bladder representing

NOTE Confidence: 0.9426376

00:05:42.150 --> 00:05:43.610 a positive FAST examination.

NOTE Confidence: 0.9982411

00:05:44.565 --> 00:05:45.604 As you can see on

NOTE Confidence: 0.9982411

00:05:45.604 --> 00:05:46.824 the picture on the right,

NOTE Confidence: 0.9774374

00:05:47.125 --> 00:05:48.565 it was confirmed by a

NOTE Confidence: 0.9774374

00:05:48.565 --> 00:05:49.384 CT scan.

NOTE Confidence: 0.9944564

00:05:50.805 --> 00:05:52.425 Alright. Ready for some cases?

NOTE Confidence: 0.9666292

00:05:53.365 --> 00:05:54.485 I want you to first

NOTE Confidence: 0.9666292

00:05:54.485 --> 00:05:55.944 name the view and second,

NOTE Confidence: 0.9666292

00:05:56.085 --> 00:05:57.305 point out the pathology.

NOTE Confidence: 0.99874294

00:05:58.005 --> 00:05:58.824 Let's go.

NOTE Confidence: 0.9198934

00:06:05.029 --> 00:06:06.710 Yes. You're right. We used

NOTE Confidence: 0.9198934

00:06:06.710 --> 00:06:08.089 a curvilinear probe

NOTE Confidence: 0.91611886

00:06:08.470 --> 00:06:09.510 and this is the right

NOTE Confidence: 0.91611886

00:06:09.510 --> 00:06:10.730 upper quadrant view.

NOTE Confidence: 0.98516476

00:06:11.110 --> 00:06:12.790 The fast is positive. You

NOTE Confidence: 0.98516476

00:06:12.790 --> 00:06:14.310 can clearly see free fluid

NOTE Confidence: 0.98516476

00:06:14.310 --> 00:06:15.285 on the left lobe of

NOTE Confidence: 0.98516476

00:06:15.285 --> 00:06:15.945 the liver

NOTE Confidence: 0.9660122

00:06:16.645 --> 00:06:18.104 and at Morrison's pouch.

NOTE Confidence: 0.99812716

00:06:19.205 --> 00:06:20.585 Ready for the next one?

NOTE Confidence: 0.9979881

00:06:26.805 --> 00:06:27.464 Good job.

NOTE Confidence: 0.9592621

00:06:27.845 --> 00:06:29.384 We were using a curvilinear

NOTE Confidence: 0.97806823

00:06:29.685 --> 00:06:31.069 probe, and this is the

NOTE Confidence: 0.97806823

00:06:31.069 --> 00:06:32.669 right upper quadrant view. It

NOTE Confidence: 0.97806823

00:06:32.669 --> 00:06:34.270 is positive because there is

NOTE Confidence: 0.97806823

00:06:34.270 --> 00:06:35.550 a tiny amount of free

NOTE Confidence: 0.97806823

00:06:35.550 --> 00:06:37.789 fluid at the inferior pole

NOTE Confidence: 0.97806823

00:06:37.789 --> 00:06:38.610 of the spleen.

NOTE Confidence: 0.9892523

00:06:39.629 --> 00:06:41.069 Okay. Advance to the next

NOTE Confidence: 0.9892523

00:06:41.069 --> 00:06:42.690 slide. Take your time.

NOTE Confidence: 0.95798296

00:06:54.915 --> 00:06:56.695 Yes. We used a curvilinear

NOTE Confidence: 0.95798296

00:06:56.995 --> 00:06:58.730 probe, and we're looking at

NOTE Confidence: 0.95798296

00:06:58.730 --> 00:07:00.350 the right pleural space.

NOTE Confidence: 0.99060154

00:07:00.890 --> 00:07:03.050 You correctly identified the pleural

NOTE Confidence: 0.99060154

00:07:03.050 --> 00:07:03.550 effusion.

NOTE Confidence: 0.98318434

00:07:04.490 --> 00:07:05.770 We will cover the lung

NOTE Confidence: 0.98318434

00:07:05.770 --> 00:07:06.990 and pleural pathologies

NOTE Confidence: 0.960519

00:07:07.370 --> 00:07:08.910 in a separate lecture though.

NOTE Confidence: 0.9987112

00:07:09.370 --> 00:07:10.190 Next case.

NOTE Confidence: 0.9579146

00:07:17.325 --> 00:07:19.165 We used a curvilinear probe

NOTE Confidence: 0.9579146

00:07:19.165 --> 00:07:20.445 and this was a pelvic

NOTE Confidence: 0.9579146

00:07:20.445 --> 00:07:22.205 view. It is positive for

NOTE Confidence: 0.9579146

00:07:22.205 --> 00:07:22.945 free fluid.

NOTE Confidence: 0.8948415

00:07:23.645 --> 00:07:26.205 Remember in pediatric cases most

NOTE Confidence: 0.8948415

00:07:26.205 --> 00:07:27.665 positive fast scans

NOTE Confidence: 0.980275

00:07:27.990 --> 00:07:29.770 are seen on pelvic views.

NOTE Confidence: 0.9258355

00:07:30.630 --> 00:07:32.710 In contrast with adults, whether

NOTE Confidence: 0.9258355

00:07:32.710 --> 00:07:34.710 Morrison's pouch view is the

NOTE Confidence: 0.9258355

00:07:34.710 --> 00:07:36.010 most commonly positive.

NOTE Confidence: 0.9487132

00:07:36.630 --> 00:07:38.390 Strong work. One last case

NOTE Confidence: 0.9487132

00:07:38.390 --> 00:07:39.290 and you're done.

NOTE Confidence: 0.9268821

00:07:46.525 --> 00:07:47.025 Perfect.

NOTE Confidence: 0.9085345

00:07:47.565 --> 00:07:49.085 We used a phased array

NOTE Confidence: 0.9085345

00:07:49.085 --> 00:07:49.585 transducer

NOTE Confidence: 0.8757654

00:07:49.885 --> 00:07:51.165 and this was a subside

NOTE Confidence: 0.8757654

00:07:51.165 --> 00:07:51.905 fluid view.

NOTE Confidence: 0.9833474

00:07:52.765 --> 00:07:54.865 There's a large pericardial effusion.