IN THE COURT OF COMMON PLEAS

OF CUYAHOGA COUNTY, OHIO

..... -x

STEVEN MAKSYM, a minor, etc.,

et al.,

Plaintiffs,

- against - No. 243093

JOSEPH A. JAMHOUR, M.D.,

et al.,

Defendants.

.....-x

DEPOSITION of IVAN HAND, M.D., taken before Renate Reid, a Notary Public of the State of New York, held at La Guardia Mariott, 102-05 Ditmars Boulevard, East Elmhurst, New York on the 1st day of November, 1996, at 11:00 a.m., pursuant to Agreement.

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I V A N H A N D, M. D., called as a witness, having been first duly sworn Renate Reid, Notary Public, was examined and testified as follows:

EXAMINATION

BY MR. MARKWORTH:

MR. MARKWORTH: Let the record show that this is the discovery deposition of Dr. Ivan Hand, an expert designated for plaintiff in the lawsuit of Maksym versus Dr. Jamhour, et al.

Dr. Hand, would you state your full name, please?

A Ivan Leslie Hand.

Q God morning Doctor. We're here to conduct your deposition today as the designated

expert witness in this lawsuit. Have you had your deposition taken before?

A Yes, I have.

Q Have you been retained as an'expert witness in a medical malpractice before?

A Yes.

Q And has your deposition been taken in that regard before?

A Yes.

Q How many times?

A Depositions or testimony?

Q I'm starting with depositions.

A I have been deposed -- this is my second time.

Q Have you testified in trial as an expert witness in a medical malpractice case before?

A Yes.

Q How many times?

A Four times.

Q What were those cases about?

MR. MISHKIND: What are you talking, about, the trial or the depo?

MR. MARKWORTH: Start with the

trial.

A One was a case of a premature baby with an infection in -- an osteomyelitis bone infection. Another two cases were full-term babies with some brain damage, and one case was a clot in the brachial artery of a premature baby.

Q The two times that you were deposed, did that involve these same cases or two of those cases at your appearance as a trial expert witness?

A Yes.

Q Which two?

A Actually, one was the case of the brachial artery clot and there was another case that hasn't gone to trial yet. So, that I was deposed on.

Q What was that case about?

A I'm trying to recall. I believe it was also just a brain damage case in a full-term baby.

Q In the cases that involved infections doctor, can you give us the identity of those cases?

MR. MISHKIND: Dale, what I'm going to do from time to time, because like our

other transmission, some of the words are cutting off, I will interrupt you or the court reporter will interrupt you if your question isn't coming through, because she had difficulty with that question entirely, okay.

MR. MARKWORTH: Fair enough.

A 1 don't recall the -- it was one case and I don't recall the name of the plaintiff or the lawyers involved.

Q Do you know what court?

A It was in New York County, New York City, Manhattan.

Q Do you know what defendant or defendants?

A I really -- I just don't remember the names.

Q All the cases that you have participated in that you have told us about, how many were for the patient versus how many were for the physician or care giver?

A I would say 75 percent were for the physician and 25 percent for the care giver, 25 percent for the patient.

Q Is your name listed in any service for the retention of expert witnesses?

A Not that I know of.

Q Doctor, in conjunction with this lawsuit, when were you first retained?

A I was contacted in October of '95.

Q You rendered a written report dated October 28, 1995, correct?

A Correct.

Q Doctor, have you written or rendered any other report in this lawsuit?

A No.

Q Are there any earlier drafts of this report in your file?

A No.

Q This October 28, 1995 report is the sole report you prepared in conjunction with the lawsuit?

A Yes.

Q What was your purpose and role as an expert witness as you understood it leading to this report?

A My purpose was to review the chart in the -- and the depositions and give an opinion as

to whether the standards of care were met in the care of this patient.

Q Has that purpose or role on your part changed at all since the time of this report?

A No.

Q The materials that you received before you authored this October 1995 report consisted of what?

A It was a copy of the Deaconess birth records and the mom's record, a copy of the ER forms and histories from Deaconess, the Metro admission, and the depositions of the mom, Dr. Jamhour, Dr. Vuppula, and Dr. Porter.

Q Were there any other records that you sought and for whatever reasons were unable to retain in conjunction with the preparation of this report?

A I didn't understand the question.

Q Were there any other records that you asked for but did not receive before you prepared this report?

A No.

Q Did you participate in any conference with Mrs. Maksym?

A No.

Q Or with any family member?

A No.

Q Or with any other physicians or other persons other than counsel?

A No, but I did receive a photograph of the baby from Mr. Mishkind at the time of my review, and which I subsequently returned to him.

Q The photograph was of what or who?

A The photograph was of the baby, Steven Maksym, that I was told was taken on the day of discharge.

Q Were you given any written records that evidenced that that photograph was taken on the day of discharge?

A No.

Q In all the written records that you reviewed, did you find any reference or testimony that stated that that photograph was taken on the day of discharge?

A I don't recall.

Q Is it relevant to you that that photograph was taken on the day of discharge as opposed to any earlier day during the infant's

admission at Deaconess?

A Yes.

Q And why, sir?

A Because of the protuberant abdomen that this child had on the day of discharge.

Q What is your source for relying upon the fact that this photograph was taken on the day of discharge?

A Mr. Mishkind.

Q At what time on the day of discharge was the photograph taken?

A I'm not sure.

Q Is that relevant at all to any opinions you may give in this lawsuit?

A I don't believe so.

Q Would you define your use of the term, "protuberant"?

A I have the actual photo in front of me again, and the baby's abdomen is distended, appearing well above the level of the ribs, and the costal muscles, and it is protruding significantly from the baby's body. It's very noticeable.

Q Do you use the term "protuberant" as synonymous with the term "distended"?

A Yes.

Q You feel there's no distinction between the term "protuberant" and "distended"?

A There is a distinction between the two. I can say that "distension" to me implies that there's gaseous fluids in there. "Protuberant" to me says that there's extension above where I believe the normal line of the abdomen should fall.

Q From the photograph, can you make a distinction that this child had a "distended abdomen", as you just now defined it, versus a protuberant abdomen?

A I can say that it is protuberant and it is high on the differential that this child could have a distended abdomen. I can't tell without examining the baby.

Q Do you feel that a photograph is sufficient for you to make a diagnosis that the infant has a distended abdomen?

A No, it's just one piece of evidence,

Q I didn't hear the end of the answer, it's just one what?

A Just one piece of evidence. I would

want to it to be further corroborated with physical exam.

Q Was this photograph taken with the infant on inspiration?

A I can't tell from just looking at the photograph.

Q Does that make any difference to you?

A Not in this photograph.

Q Is there anything else significant about this photograph as you see it?

A There's some evidence of increased -- possibly some increased skin color above the diaper level, but it's just hard to say from the quality of the photograph if it represents jaundice or not.

Q How would you characterize the quality of the photograph?

A It's a good standard photograph, but not a quality to make a diagnosis of jaundice or hyperbilic --

Q You told us you received the photograph before you prepared the October 28, 1995 report, correct?

A Correct.

Q Is there anything else that you received before preparing that report that you have not told us about?

A No.

Q In conjunction with preparing your report did you do any kind of literature research?

A I read some articles and texts on hyperbilirubinemia and galactosemia and E. Coli.

Q Are those articles in your file?

A I don't have them with me, no.

Q But are they with a file in your office?

A They're not in any specific place. I have lots of articles, so they're somewhere in my office, but not where I can readily say these were the specific articles that I looked at.

Q So you don't recall which ones that you looked at?

A No.

Q You can't tell us here today what articles you reviewed by name, author or publication?

A No.

Q Were any of these articles authored by

any of the experts, as you understand them to be, in this lawsuit?

A No.

Q Were any of these articles authored by -- well, it would include yourself -- were any of these articles authored by yourself?

A No.

Q Is there anything else that you did leading up to the preparation of your October 28, 1995 report?

A No.

Q Since the time of that report, have you received and reviewed any additional material?

A Yes.

Q Tell us what you received and reviewed.

A I received depositions from an office worker named Violet. The second deposition from Dr, Jamhour, a series of nurses' depositions and a series of depositions from the experts, Dr. Klein, Dr. Levy, Dr. Buttis, Dr. Jay -- **I** received that fairly recently.

Q Anything else that you received?

MR. MISHKIND: He **has** most of the

stuff here. You want to just --

Q Why don't you identify for us what you do have before you.

A I have a copy of a metabolic screen, in front of me from Cleveland Metro. I have a copy of Dr. Rehmus's review of the case. I have a copy of Dr. Jay's review of the case, a report by Dr. Perry, a report by Dr. Levy, a report by Dr. Gold, Dr. Radetsky, Dr. Buttis, medical report by Dr. Klein, and as I said before, by Dr. Jamhour.

Deposition of Maria Guyer, Catherine Macroney, Evelyn Forage, Joan Maksym, deposition of Neil Buttis, Jerome Klein, Anamarie Madgemadel, Andrea Safel, Kathleen Johnson, another Joseph Jamhour, and Harvey Levy. As well as I have the medical records of -- of Steven and his mother at Deaconess Hospital in front of me. And the Metro records in front of me.

Q Which Metro record, the August/September admission?

A Yes.

MR. MISHKIND: He's also got additional records, not full records, but I

think there's some progress notes.

A I have some records, some notes from the Cleveland Clinic, Dr. Cohen, some lab studies, and ECCO EEG reports, and some Metro records dated 10/3/90 and 4/24/90, and 7/31/91. I believe that's it.

Q Apart from the articles that may be back at your office, is there anything else that you've reviewed in conjunction with this case that is not before you now?

A No.

Q Did you make any notes in reference to this case?

A No.

Q Did you make any kind of notations on any of the depositions?

A I have little post-it marks on some *of* the depositions and lab sheets.

Q Do you have any post-it martial on any of the nurses' depositions?

A No.

Q Doctor, have you authored any publications that in your opinion relate to any of the medical issues that are involved in this

lawsuit?

A No.

Q Have you ever had occasion to diagnose galactosemia in an infant?

A I have been involved in the care of two galactosemic infants, that I can recall.

Q Tell us about that, without giving obviously the identity of the patients, but, I mean, how did you become involved in the care of a galactosemic patient?

A One case, I believe I saw while I was in medical school as either a third-year medical student or fourth-year medical student, and it was a child with galactosemia, and E. Coli sepsis, who was about a week or two of age.

Q Was it was about a week or two of age when the child developed the meningitis?

A Yes.

Q Would you agree that bacterial infection among galactosemic infants generally develops during the first week or during the second week of life?

MR. MISHKIND: Objection. Go ahead, Doctor.

A I think it depends on when the galactosemia is diagnosed and treated. Again, the one case I saw where the child was infected, it was between the first and second week *of* life.

Q Well, let's assume that the child is not diagnosed as having galactosemia, would you agree then that bacterial infection among galactosemic neonates generally seems to develop at the end *of* the first week or during the second week of life?

MR. MISHKIND: Same objection.

A Yes.

Q That child, in that case, how was the diagnosis of the galactosemia made?

A It was made through urine testing.

Q Was the diagnosis *of* galactosemia and the meningitis made at or about the same time?

A The diagnosis of galactosemia was made after the diagnosis of meningitis.

Q Tell us about the other case that you resolved?

A It was when I was a neonatal fellow, and there was a patient with hyperbilirubinemia, and part of the workup was a screen for

galactosemia which was positive in that child.

Q How old was the child?

A The child was approximately two to three days old when the hyperbilirubinemia was noted and the workup was begun.

Q What was the range of the finding of this hyperbilirubinemia?

A The bili -- I don't recall exactly, but the bili was above 15 when I first heard about the patient, somewhere on the second or third day of life.

Q In conjunction with a neonate, what do you consider to be an abnormal bili range?

A It depends on the age of the patient, but I would say, that beyond approximately 13 at 72 hours of age is abnormal.

Q Doctor, I'll draw your attention to Steven Maksym and Mrs. Maksym. Would you agree with me that Mrs. Maksym underwent a normal pregnancy based upon your review?

A Yes.

Q Would you agree with me that there was a normal spontaneous vaginal delivery of this child on August 15, 1989?

A Yes.

Q And would you agree that, in your review of the records, that Steven Maksym had Apgar scores of 9 and 9 at one and five minutes?

A Yes.

Q Do would you agree that looking at these records, that this infant was a normal full-term infant then, at birth?

A From the record, yes.

Q Would you agree that there was no history of any fever or illness in the mom?

A **I** don't recall any noted fever or illness.

Q Would you agree there's no history of prolonged rupture of membrane?

A Yes.

Q Would you agree there's no history that was present for any caregiver to be suspicious for any infection in this child at birth?

A Yes.

Q Was this infant jaundiced at birth?

A There's no -- I have no record of that, no.

Q Would you agree that this infant was

not jaundiced at birth?

A Yes.

Q Would you define for us physiological jaundice?

A Physiological jaundice is jaundice occurring in a healthy newborn and doesn't exceed a level of approximately 13 by 72 hours of age.

Q What are the typical symptoms of physiological jaundice in a full-term infant?

A There are no symptoms in physiological jaundice because the baby is a perfectly healthy baby with just jaundice skin discoloration.

Q Are there any signs of physiological jaundice in a full-term infant?

A Just the physical color of the skin.

Q What is the typical onset of signs of physiological jaundice in a full-term infant?

A We usually -- it's usually jaundice that becomes apparent after 24 hours of age.

Q Why is that?

A Because jaundice that's apparent within the first 24 hours of age is not considered physiological.

Q Is the appearance of this kind of jaundice common or uncommon?

A Which kind of jaundice?

Q Dr., I'll direct your attention now --

MR. MISHKIND: Dale, he hasn't answered your question.

MR. MARKWORTH: I thought he did.

MR. MISHKIND: He asked you which kind of jaundice.

MR. MARKWORTH: Physiological jaundice, we're talking about.

A Physiological jaundice is common.

Q I'm sorry. Steven Maksym, I think if you check his chart before you, he was born on Saturday, 1:15 a.m. on August 15, 1989?

A Correct.

Q Looking at day 1, on August 15, can you find the newborn infant record for the initial assessment?

A I believe I have it in front of me, yes.

Q That includes an examination of the abdomen, does it not?

MR. MISHKIND: Are you talking about

the nurses' assessment or MD assessment, Dale.

MR. MARKWORTH: I'm talking about the page 2 of the newborn infant records for the initial assessment.

MR. MISHKIND: Well, let's not use page 2 because we know that -- I'm not sure that we're all dealing with the same page numbering. What does it say on top of it, just so --

MR. MARKWORTH: It says on the top of it, reading below the name of the hospital, it says "newborn infant records/page 2" under that initial assessment. On the bottom of the page it has handwritten, Jamhour, Vuppula.

THE WITNESS: I have that in front of me now.

Q Would you agree with me that in accord with this record there was an examination of the abdomen?

A Yes.

Q And the finding in the abdomen was soft with bowel sounds?

A Yes.

Q Doctor, would you agree that that was a normal examination of the abdomen?

A Yes.

Q Would you agree with me that for this record, there's no indication that this child had a distended abdomen at this time?

A Yes.

Q Do you hold the opinion that this child had a distended abdomen on day 1, August 15th?

A I don't know, so I can't really give an opinion on that.

Q And what makes you say that you don't know, what about your review in this record gives you cause to say that this child may have had a distended abdomen on day 1, August 15th?

A I -- my only impression of the distended abdomen is from the photograph that I've seen from the 17th. So, I don't know if it was there on the 15th and not noted.

MR. MISHKIND: Dale, are you able to hear us with that noise?

MR. MARKWORTH: I'm getting it.

Q So the only point of reference for believing that there's the presence of a distended abdomen at any time during the admission at Deaconess Hospital is the photograph presented to you, correct?

A Correct.

Q Going back to August 15, on the newborn records for the nursing note, do you have that before you?

MR. MISHKIND: Is that the one that starts at 1:30 a.m.?

MR. MARKWORTH: Pardon me, it's the newborn records, Howard, it's the one that has all the feeding.

MR. MISHKIND: He's got it in front of him.

A Yes.

Q With that before, is that before you?

A Yes.

Q In your review of the records I assume you read this, right?

A Yes.

Q And in reviewing this, did you find that the infant's skin was recorded as "pale pink"?

Hand

MR. MISHKIND: You're talking about on the 15th?

MR. MARKWORTH: On the 15th, only on the 15th, this would be day 1.

Q This would be day 1, right, Doctor?

A Yes.

Q The skin was recorded as "pale pink"?

a Yes.

Q The child's cry was "lusty"?

A Yes.

Q The infant was active?

A Yes.

Q The infant voided?

A Yes, there are four check marks next to voiding.

Q And all of those recorded activities and signs were normal, the ones I just read?

A Yes.

Q The feeding regimen is also recorded, correct?

A Yes.

Q The child also stooled that day, correct?

A Yes.

Q The stooling, that activity, would be normal?

A Yes.

Q And the feeding regimen, could you give us what that was, as you understood it?

A It looks like the baby, from this chart, was fed at 7:00 a.m., and took, I believe, one ounce, a half an ounce at 9:00, and then it looks like an ounce at 9:30, but the baby threw up at 9:30.

Q At 9:30 is there a designation relative to what you term "throw up"?

A There's an R.

Q What do you understand or interpret the R to be?

A Regurgitation.

Q Now, you used the term "threw up", is that being used by you as being the same as and consistent with regurgitation?

A Yes.

Q And do you interpret the regurgitation necessarily as an indication that the child took no feeding at that time or that the child took the feeding as recorded but in addition, had

regurgitation?

A I believe the child took the feeding and regurgitated the feeding.

Q And what's your basis for that?

A If the child didn't take the feeding, there would be nothing to regurgitate.

Q But is your interpretation saying that this child was unable to take any feeding at this time, that all the feeding was regurgitated, or are you indicating that the child took the feeding as recorded but in addition, there was regurgitation of still other feedings before it was able to consume the feeding as recorded?

A I can't tell the volume that was regurgitated from this notation. All I can say is that the child was fed and regurgitated afterwards. Whether it was the full volume of the feeding or just a portion of the feeding, I have no way of knowing.

Q Would regurgitation be consistent with a relatively newborn infant learning how to feed?

A It depends, again, on the volume. If the nurses had noted that there was just some mild spitting up that would be more consistent with a

normal newborn. I'm a little more concerned about the fact that a nurse, presumably an experienced nurse, noted that this baby regurgitated the 9:30 feeding.

Q So you're interpreting this as the entire feeding was regurgitated?

MR. MISHKIND: Objection, that's not what he testified to. Go ahead, Doctor.

MR. MARKWORTH: That's what he just said in his answer.

MR. MISHKIND: Listen to the answer, go ahead, Doctor.

A I'm differentiating between a baby spitting up and regurgitating. And as I said previously, I can't tell whether the baby regurgitated the entire feeding or just half of the it, which I would still consider significant.

Q Doctor , are you treating the term "regurgitation" as synonymous with vomiting?

A Yes.

Q Is that based upon your understanding of the term or is that based upon some review of any of the nursing depositions?

A Based upon my understanding of the

term.

Q Doctor , looking at the feedings as recorded on August 15th, was that in the normal range for a newborn, full-term infant?

A Yes. It would be in the low normal range.

Q According to that record, does it indicate that there was a visit by the pediatrician?

A Yes. There seems to be a visit at 6:00 p.m. by Dr. Jamhour noted.

Q Now, Doctor, as per the chart, was this child jaundiced at all on August 15th?

MR. MISHKIND: You're talking about up to 6:00 p.m. or at any time?

MR. MARKWORTH: At any time on August 15th.

A There's no indication on the chart, no.

Q On August 15, as per the chart, was there any evidence that the abdomen was distended?

A No.

Q Per the chart, was there any clinical signs or symptoms that this infant was sick or ill?

A Only the regurgitation, which was discussed previously.

Q Enlarging that question and including in that question any history that you may have obtained by review of Mrs. Maksym's depositions or anything else, were there any clinical signs or symptoms or history that this infant was sick or ill on day 1, August 15th?

A Well, the mother reported that she felt the baby wasn't feeding properly from the start. But there's no evidence of that on the -- on what I have in front of me on this chart.

Q Anything else, Doctor, any other source?

A There's no other source except the mother's deposition and the reports from the Metro admission, when she talked about the baby being a poor feeder and not that active since birth.

Q Would you agree with me that the Metro record is a history and as such the history would have in all probability and likelihood have been derived from Mrs. Maksym?

A Yes.

Q Turning your attention now to day 2,

August 16th, would you agree that at the time of the nurse's morning examination, that the child's skin was recorded as being "pink"?

A From the record, I have no idea what time the examination was done, but this is an indication of pink under skin.

Q Did you review the nurses' depositions sufficiently to have any understanding as to when those recordings would have been made in this part of the chart, being the newborn record?

A I don't recall.

Q Looking at that record it also indicates that the child was active, correct?

A Yes.

Q And that the cry was lusty?

A Yes.

Q The child, again voided and stooled?

A Yes.

Q All of these recorded signs and activities are in the area of normal, would you agree with that?

A There was also -- there's also an indication that the baby had yellow drainage from the left eye, which may be an early sign of

conjunctivitis.

Q My question to you, is the fact that the nurse recorded her finding that the skin was pink, the child was active, the cry was lusty, the child voided and stooled, those --

A Those findings sound normal.

Q What was the feeding *of* the child on day 2, August 16th?

A It looks like the baby was fed one and a half to two ounces at 2:56, 9:30 and 1:30.

Q Both feedings, were they normal?

A Yes.

Q Are there any recorded records here of the infant regurgitating or vomiting?

A No.

Q Dr. Kurchaski, according to this record did a circumcision at 9:00 in the morning, you see that?

A Yes.

Q If this child had a distended abdomen at the time of the circumcision, would you expect that Dr. Kurchaski would have observed that condition?

MR. MISHKIND: Objection, go ahead.

Hand

A It would not have -- I would have expected Dr. Kurchaski to make that observation at the time.

Q And if he had made that observation, would you have expected him to examine the child closely and to have recorded the finding?

MR. MISHKIND: Objection. Go ahead.

A If he made that observation, I believe it would have been the standard of care to examine the child and note those findings.

Q And there is no such finding by Dr. Kurchaski as recorded in this chart, correct?

A Correct.

Q Now, on August 16th, there was a bili result given?

A Yes.

Q What was that, Doctor?

A 6.5.

Q And that would fit your definition as in the normal range?

A Yes.

Q And that information was known by Dr. Jamhour?

A I believe so, yes.

Q And that bili result was consistent with Dr. Jamhour's discharge examination where in he found there was facial and truncal jaundice?

A Could you repeat that question, I'm sorry.

Q And that finding of the bili result was consistent with Dr. Jamhour's clinical examination finding on discharge examination that this child had facial and truncal jaundice?

MR. MISHKIND: I'll object. I don't know what -- how one can say a lab result is consistent with what Dr. Jamhour's -- I don't know how a laboratory result of 6.5 in the morning could necessarily be said to be consistent with a physical finding by a doctor in the evening. But my objection is noted, the doctor can answer the question.

A My concern is that a notation of truncal jaundice may imply a bilirubin level higher than 6.5.

Q Why is that, Doctor?

A Because generally, jaundice progresses from -- we usually note it first in the face and then it will progress down the trunk and to the

lower extremities.

So, it appears that the bilirubin, which was done early in the morning and the doctor's exam, which was done later in the day, may represent two different levels of jaundice that were seen, one from the serum level that we obtained in the morning and two that the Doctor was witnessing later in the afternoon or early evening.

Q Do you hold that if there's truncal jaundice, that that means that there must be a certain increase in the bili from an earlier lab test?

A I can't be sure. There may be some progression.

Q Is there any kind of article or treatise that relate or correlate a serum bili level test to the amount of jaundice that's clinically manifest in the child?

A I can't recall any particular article or treatise that would discuss that, but it's a commonly accepted fact that jaundice in newborns tends to spread from and be first visible in the face and then spread to the trunk.

Q Would it be appropriate, then, to order a repeat bili?

A Yes.

Q And a repeat bili was ordered in this case, correct?

A Yes.

Q Was there anything in the chart or from the testimony of Dr. Jamhour or Vuppula or from the testimony of the nurses that indicated that this child was ill or sick on day two?

A I recall one statement from a nurse that the child was lethargic and I have to try and find that right now.

Q Take a look, Doctor. That was on day 1, I believe, August 15, at 6:00 p.m.. And look in the mom's chart.

A Okay, you're right.

Q Okay, Doctor?

A Okay. This was on the first day the baby was noted to be "lethargic". The second day there's no notation.

Q Let's talk about lethargic, would you define your understanding and how you use the term, "lethargic"?

A "Lethargic" would specifically mean that the baby is not very active, is different from all the other babies that we see in the nursery and that the nurse sees in the nursery, and the baby is just different, abnormal, not as active, not as vigorous as would be expected.

Q Would you agree that a single observation of lethargy in a newborn less than 24 hours of age is not in itself significant?

A I would agree that it's only one finding, and in itself is not significant.

Q Now, that note of Nurse Hooley, if you look at that note, that does not indicate that she described the mom as -- at 6:00 p.m., as "sleeping on and off"?

A "Patient sleeping on and off", yes.

Q And this is the maternity LPN nurse and not the nursery room nurse recording that, that's your understanding?

A Yes.

Q And her note at the same time also indicates that there were no complaints?

A Yes.

Q And that same note indicates that mom

and baby were lethargic?

A Yes.

Q If the mom was having no complaint but was sleeping on and off, would those two findings be consistent with your definition of lethargic?

MR. MISHKIND: Objection. Go ahead.

A No.

Q Would it be fair to say that as the nurse was using the term "lethargic" it's not the same as how you use the term "lethargic"?

MR. MISHKIND: Objection?

A I think lethargic is an accepted medical term that implies more than just a patient sleeping. So I would believe that the nurse would -- is using lethargic correctly, meaning that she thought the patient and baby were less active and less awake and vigorous than she would expect.

Q Is that the only finding in this entire chart where the description of lethargic was applied to the baby?

A Yes, I believe so.

Q If a physician were to observe the baby as lethargic, would you expect that the physician would make such a recording in the record

and do a follow-up?

A I would hope so, yes.

Q But you would agree with me that at the time of the Nurse Hooley note, maternity nurse at 6:00 p.m., was the same time that Dr. Jamhour visited and did his initial examination *of* this child?

A Yes.

Q And that the record shows that that, Dr. Jamhour's examination finds the child was normal and not lethargic?

A Yes.

Q I want to go back to day 2, August 16th, Doctor, the jaundice that was present, on that day was that consistent with physiological jaundice?

A Yes, it could be.

Q Clinically, as per the chart and the depositions of Dr. Jamhour, Vuppula and the nurses, was there any indication that this child was sick or ill?

A Not from the chart.

Q What evidence is there from any source, that you believe would support any kind of

suggestion that this child, infant was sick or ill as of August 16th?

A The only indication was the mother's history that the child was not behaving vigorously and did not have a lusty cry from birth.

Q I'm going to turn your attention now to the beginning, then of day 3, August 17th.

A Yes.

Q Looking again at the nurse's records at that time, there was a finding that the skin was jaundiced, is that correct?

A Yes.

Q That infant was active, correct?

A Yes.

Q And that the cry was lusty?

A Yes.

Q That the child voided?

A Yes.

Q And the child also had a stool?

A Yes.

Q Those findings are the nurse's, could be characterized and you would characterize them as "normal"?

A Yes.

Q And you understand that the repeat bilirubin on this day was what, Doctor?

A 10.2.

Q And the 10.2 again is within your definition of the normal range?

A Yes, it can be.

Q And this information as you understand it was conveyed to Dr. Vuppula prior to discharge?

A Yes, I assume so.

Q And what was the feeding of this child on the morning of August 17 as per of the chart, as you understand it?

A It looks like the baby fed two ounces at 6:30, 9:30 one and a half ounces. Again, sort of a lower -- low normal for a full-term baby.

Q Again, looking at the chart, looking at the depositions of Dr. Jamhour and Vuppula and of the nurses, what evidence is there that this child was sick or ill as of the time of this day of discharge?

A There was a temperature elevation from 3:00 a.m. of that morning, which is noted in the chart, of 37.9, which represents a fever in this baby, which at that point, probably was a sign that

this baby was not well.

Q What is your definition, then, of a fever or when you can conclude that a fever is present relative to a temperature recorded?

A This was an axillary temperature of 37.9, which is above the expected level and it doesn't appear as if it were repeated until 7:00 a.m.

Q What was the temperature at 7:00 a.m.

A I believe it's 36.6, which is a low temperature. So, I can't tell from the chart what the duration of the fever was or why there was this sudden drop and temperature instability from a high fever to a relatively low temperature.

Q Are you saying that the temperature of 37.9 axillary represents a high fever, is that your opinion?

A I would say it's an elevated temperature, it's not normal.

Q A single elevated temperature, does that constitute sufficient basis to make the diagnosis that the child is suffering a fever?

A Again, one temperature -- you need to know the duration of the temperature, but newborns

have very little capability demonstrating signs of illness. It's fairly rare to see any kind of temperature elevation in a newborn. Therefore, even one single event has to be viewed suspiciously.

Q What is the upper limit: temperature that can be found that you would not characterize as a fever?

MR. MISHKIND: You're talking about axillary now, Dale?

MR. MARKWORTH: Let's start with axi1lary?

A I would say, approximately 37.7.

Q And rectal?

A Rectal would be about 38.

Q You said about 38.

A 38.

Q And your basis for that, is that experiential for yourself?

A Yes.

Q And can you cite any outside source and support for that statement or that opinion?

A Not offhand I can't.

Q That is, if some other physician had

something other than exactly 37.7 axillary or 38.0 rectal as the low temperature to reach fever, you wouldn't necessarily disagree with him?

MR. MISHKIND: Objection, it depends upon what the temperature is that that particular physician is using. I just show my objection. Go ahead.

A I would disagree with him, because I believe it's generally accepted that an axillary temperature above 37.7 is abnormal. Again, I believe that the child needed to be -- a child with that kind of a fever needs to be examined and observed at that point.

Q Was there any other temperature recorded after the 36.6 temperature on August 17th?

A I don't see any other recording other than the 36.6 at 7:00 a.m.

Q Is there anything else in this chart and by way of the deposition testimony of the nurses or the physicians, which would give you any indication that this child was abnormal or was suspicious for any illness or sick?

A The baby's bilirubin from the morning, which we said was 10.2, again, it's -- in and of

itself is not -- could be physiological, but it also could be a sign of illness.

Q Why do you hold that opinion?

A Because I know how bilirubin levels rise, and thus far, I have seen a 6.5, I've seen a 10.2, and I don't know how high the next bilirubin level will be.

Q But in and of itself, the rise from 6.5 to 10.2 is not out of the ordinary, is it, Doctor?

A No.

Q I want to go to your report, Doctor. And in your report, beginning with the second paragraph, you state that the infant was discharged on the second day of life, are you with me?

A I'm trying to find it. One second.

Q In the second paragraph.

A Yes.

Q You would agree with me that this child was discharged at the beginning of the third day of life?

A Yes.

Q You indicated there that the child was discharged with a rising bilirubin level and facial

and truncal jaundice, correct?

A Yes.

Q And that's what we already talked about that the rising bilirubin level is up to 10.2 and the facial and truncal jaundice is documented in the record by Dr. Jamhour, correct?

A Yes.

Q In my review of records and depositions, the infant was not feeding well at this time. As I now understand your testimony, the sole source for the not feeding well at this time would be the mom's histories, correct?

A Yes.

Q And that the baby had a distended abdomen. And as I now understand your testimony, the only source for stating that this baby had a distended abdomen was this photograph that's been represented to you as having been taken sometime on August 17th, correct?

A Correct.

Q And as for these reasons, you go on to conclude that the infant should not have been discharged at this time, correct?

A For the -- because of the bilirubin,

because of the distended abdomen, because of the temperature instability, because of the initial lethargy. Those are the reasons that I felt the child shouldn't have been discharged.

Q In order for you to hold the opinion that this child should not have been discharged, I need to know the constellation of signs, symptoms or findings that you rely upon, Doctor?

A The baby, at the time of the bilirubin of 10.2, was 54 hours old. So, at that point, I don't know exactly how high his bilirubin level will go. I have that in the back of my mind, as well as the fact that this baby, a few hours previously, prior to discharge at 3:00 a.m., had a temperature elevation.

I also have some question as to the baby's lethargy, which was described by the nurse on day 1, but not by the doctor. And this plus the mother's concerns and father's concerns that the baby was just not right, would prompt me to hold the baby and investigate further if this baby was going to show some further signs of hyperbilirubinemia or sepsis.

Q So this decision on not discharging

this child, then, was dependent not only on the findings that are recorded in the chart, but also based upon the history as given by mom and/or dad?

A The history helps to strengthen the case, but I would be very concerned about sending home a baby with a rising bilirubin who had a temperature elevation a few hours prior to discharge and not even examining this baby at the time of discharge.

Q Are you holding the opinion that a single temperature elevation at 37.9 axillary and a rising bilirubin level from 6.5 to 10.2 is sufficient for a physician to have to keep this baby in the hospital and not discharge the baby?

A I think it's sufficient for a doctor to be concerned and to either keep the baby in the hospital or make sure to follow up that baby the next day or that evening with an examination and bilirubin level.

Q Understand, Dr. Hand, we need to know what your testimony will be to a reasonable medical probability and whether or not it was below the standard of care for a pediatrician to have discharged this child, Steven Maksym, on August

17th, in the face of what you have just indicated was simply a rising bilirubin level from 6.5 to 10.2 with one temperature elevation earlier that morning, at 3:00 a.m., of 37.9.

Is that all that is necessary or are you dependent also upon the fact that the child had a distended abdomen as referenced in your report?

A I believe, just from the bilirubin and fever level, that this child needed close attention and follow-up. I don't believe it was against the -- below the standard of care to discharge the baby that day, but I do believe it was below the standard of care not to follow this baby closely and be in contact with the mother, see the baby and get a repeat bilirubin that evening or the next day.

Q And if a repeat bilirubin had been done the next day, can you state with reasonable medical probability what the result would have been?

A I believe it probably would have been above the level of 13 and would have placed it in the category of non-physiological jaundice or pathological jaundice.

Q When you say above 13, so it could have been 14 or 15 and that would qualify?

A Yes.

Q Your opinion as being non-physiological jaundice?

A Yes.

Q As I look at your report, your criticisms are relative to the discharge of the baby and the failure to schedule a reexamination of this baby, correct?

A Yes.

Q Your report later goes to one other area of criticism and that was the fact that there was not an earlier diagnosis of galactosemia, correct?

A Correct.

Q And all of the three general areas were your holding an opinion in this case to a reasonable medical probability that there is a deviation of standard of care?

A Could you reiterate the three areas.

Q Yes. The decision to discharge this infant on August 17th, the decision not to have any kind of reexamination if the child was discharged

on the 17th, and the failure to make an earlier diagnosis of galactosemia?

A I would combine the first two and say that it would have been all right to discharge the patient had they really made an effort to see this baby as an immediate follow-up. So, again, I don't believe that discharging itself was a deviation, but I do believe that not following the baby after the discharge was a deviation. And the late pick-up of galactosemia was a deviation.

Q Are there any other opinions that you hold that there was any other deviation from the standard of care in this case?

A No.

Q Do you have an opinion as to when this infant first became bacteremic, to a reasonable degree of medical probability?

A Yes. I believe it was on the 17th, when the baby was starting to show some systemic signs first manifested by temperature instability.

Q What is your basis for that, just the temperature reading of 37.9 to 36?

A Yes.

Q And did the baby remain bacteremic

then, from that point forward until the development of meningitis?

A Yes.

Q When does the baby first have meningitis, if you can say to a reasonable degree of medical probability?

A The baby clearly had meningitis upon admission to Metro Center on the 21st. Prior to the 21st, by way of the mother's history, she reports that the baby was sleeping all day on the 20th, which I believe was -- is a sign that this baby probably had meningitis at that time.

So I would say -- and the mother did call the pediatrician's office on the 19th describing some feeding problem, so I would pinpoint the timing of the meningitis somewhere between the 19th and 20th as the earliest onset.

Q Your source for saying that the mother called a pediatrician's office on the 19th was based upon her testimony?

A Yes.

Q Is there any other independent source to confirm her testimony that there was a call on the 19th from the pediatrician's office?

A Just the historical record from the Metro Health Center.

Q Which again would be referenced to the mother's history?

A Correct.

Q And your understanding is that when she called the pediatrician's office she was calling Dr. Skrinska's office?

A Yes.

Q And it's your understanding that once Mrs. Maksym left Deaconess Hospital on the 17th, that she no longer considered Dr. Jamhour and Dr. Vuppula as her child's pediatrician?

A Yes.

Q Have you reviewed Dr. Skrinska's deposition testimony?

MR. MISHKIND: Dale, I don't think I've sent it to the doctor yet. Looking in the stack of stuff that he has here, it doesn't appear as if it's been sent to him. I may be wrong.

A No, I don't recall it.

Q Have you reviewed the deposition testimony of Dr. Skrinska's registered nurse, Linda

Strong?

A I don't believe so.

Q What is your understanding of the course, then of Steven Maksym following discharge on August 17th?

A My understanding of the course is that the child continued to have some feeding problems and was not very active and the mother became increasingly concerned, called Dr. Skrinska's office on the 19th, and was told to change the formula.

MR. MISHKIND: Hold on one second, Dale, there's someone at the door.

MR. MARKWORTH: Go ahead.

MR. MISHKIND: Go ahead.

MR. MARKWORTH: Actually this --

A On the 19th, the mother had phoned Dr. Skrinska's office and reporting the feeding problems, vomiting, and her concerns about the patient, was told to switch formulas, which she did. On the 20th the baby was progressively worse, sleeping all day, not feeding much at all.

And on the 21st, she brought the baby to the emergency room. And the baby was septic and

meningitic at that point.

Q Do you understand that this child was progressively worse at the specific time of discharge on August 17th all the way through leading up to the return of the child on August 21 at the emergency room at Deaconess?

A That the baby was progressively worse?

Q Yes.

A Yes.

Q Would it be your understanding and expectation that this child was not feeding well throughout the period of time that the child was home with mom?

A Yes.

Q And would it be your expectation, then, that this child would not be realizing any kind of weight gain during this period of time?

A Yes.

Q And would it be your expectation that this child was jaundiced and continued to remain jaundiced during this entire period of time?

A Yes.

Q And that in fact, this child's

jaundice would be increasing over this period of time?

A Yes.

Q And it's your understanding that the child was not active at home and you would expect that the child's lack of activity would be progressive over this period of time?

A Yes.

Q And on the 19th, when mom says that she called the pediatrician's office and reported that her child was not feeding well, and was vomiting, you believe that it was below the standard of care for the pediatrician not to have seen this child right away?

MR. MISHKIND: Let me note an objection. I won't say anything further, go ahead, Doctor.

A Yes.

Q Why, Doctor?

MR. MISHKIND: To show a continuing line of question, the questions concerning to -- questions concerning Dr. Skrinska. You can answer the question.

A I believe that on the 19th, this

mother was calling quite concerned about her baby and a newborn who is not feeding, whose mother is concerned about the health, deserves to be seen, especially if she was also -- if she knew that the baby was jaundiced and conveyed that to the Doctor, she should have been seen immediately.

Q Well, do you hold the opinion that if the mother reported to the pediatrician's office that the child was not feeding well, that the child was actually vomiting, that question should have been presented to the mother, which would have elicited these other findings such as the continued and progressive jaundice, the lack of activity of the child?

MR. MARKWORTH: I'll repeat the question.

Q Doctor Hand, do you hold an opinion to a reasonable degree of medical certainty that if the mother had reported to Dr. Skrinska's office that her child was not feeding well and that her child was vomiting, that the office should have asked questions of her which would have elicited additional information such as the child was still jaundiced or not active?

A Yes.

Q If the child had been seen in a pediatrician's office at this time, is it your opinion and testimony that the child should have received antibiotic treatment?

A Yes.

Q And if the child had received antibiotic treatment at that time, do you hold an opinion as to whether or not this child would have suffered permanent damage from meningitis?

A Could you give me a specific time?

Q Let's say that per the mom's testimony, this occurred on August 19th.

MR. MISHKIND: I think Dale, also, mom's testimony was on the morning of the 19th, if I'm not mistaken. I may be wrong.

A I would say that possibly you could have avoided the meningitis had it been treated early on the 19th. Although I do believe that this was progressing at that point, and every hour that was delayed possibly towards the end of the day, on the 19th, may have already been too late to treat this baby and prevent totally the meningitis.

Q But even on the end of the 19th, if

antibiotic treatment had been instituted, would you expect or do you hold the opinion that the degree of permanent injury to this child for meningitis would have occurred?

A I believe it would have lessened the injury if the baby was treated even towards the end of the 19th, yes.

Q And if the same question I have given you relative to the contact by mom had occurred on the 20th, what is your opinion regarding any permanency of injury from meningitis?

A I think by the 20th, the child was showing signs of meningitis just based on her reports of lethargy and not feeding. Again, I think by treating on the 20th, as opposed to the 21st, you may have lessened the degree of the injury, the sequelae of the meningitis, but I don't believe we would have been able to avoid the meningitis, because I believe the child probably had meningitis on the 20th.

Q And if this conversation with the mom had occurred on the 21st, what is your opinion, if any, regarding the likelihood of permanency of injury from meningitis?

MR. MISHKIND: What time are you talking about on the 21st, Dale, in your hypothetical?

MR. MARKWORTH: I can't recall. When was the record for Dr. Skrinska was somewhere around 11:30 to 12:00.

MR. MISHKIND: We know the baby appeared at Deaconess at 9:00 and sometime during the -- sometime in the afternoon there's a suggestion that there may have been a communication with their office on that day.

Q Doctor Hand, the question is, if the conversation with Mrs. Maksym had occurred on or about the 20th --

MR. MISHKIND: You mean the 21st, don't you?

Q Around noon to 1:00 or 2:00 p.m., and if the child had been then examined and put on antibiotic therapy, within an hour or so, thereafter, do you have an opinion as to whether or not it would have made any difference as to the degree of permanency of injury from the meningitis?

A Are we talking about the 20th?

MR. MISHKIND: I think you meant the 21st.

MR. MARKWORTH: I said the 21st.

MR. MISHKIND: I think you said the 20th, but you meant the 21st.

MR. MARKWORTH: Sorry, 21st.

A I believe by the 21st, there would have been no difference, since the child was treated pretty promptly that day anyway, so I'm not sure, at that point, it would have made any difference.

Q Doctor, I want to turn to your report on the second page.

(Recess taken.)

Q Dr. Hand, I was referring to your report and directing you to the last page of your report. Do you have that before you, Doctor?

A Yes.

Q You've indicated that since the time of writing this report, you have now reviewed Dr. Porter's deposition, correct?

A Yes.

Q And you reviewed the deposition of

Violet, right?

A Yes.

Q Have you ever reviewed the deposition of Mark Baldwin, a laboratory technician from Deaconess Hospital?

A I don't believe so.

Q I'm going to direct you to the state screening test.

And now that you've read Violet's deposition and Dr. Porter's deposition, do you have an understanding as to what transpired relative to the result of the state screening test?

A Yes. Do you want me to go into it?

Q I'm going to ask you a question, but obviously, do you understand that Dr. Porter made the initial telephone call to Dr. Jamhour of Vuppula's office and spoke with Violet on August 24th?

A Yes.

Q Do you understand that on September 6th, the repeat test kit and results were received by Dr. Jamhour and Vuppula's office?

A Yes.

Q Do you understand that the test

results were received at the Deaconess Hospital lab on September 7th?

A Yes.

Q Do you understand that there was a follow-up call by Deaconess Hospital regarding the test results and the suspicion for galactosemia to Dr. Jamhour and Vuppula's office?

A Yes.

Q And that that was noted and recorded on September 7th?

A Yes.

Q With that additional information and with other additional information you may have obtained in your review of this case, do you still hold the opinion that Deaconess bears some responsibility as well to the families who informed them of abnormal metabolic screening test results?

A I would correct my report to say that no, I think Deaconess followed through by contacting the physician. And so I think that was their obligation and they performed it.

Q Doctor, what first of all, do you have an opinion as to what if any damages or permanent injuries occurred to Steven Maksym on account of

his suffering the bacterial meningitis alone?

A I believe that the hydrocephalus and a need for the VP shunt, and the patient's hemiparesis, is probably due to the meningitis.

Q Do you consider yourself to be an expert in the field of metabolic disorders such as galactosemia?

A No.

Q Doctor, in your report, you say dietary management is the single most important facet in treating galactosemia, do you see that?

A Yes.

Q Would you agree that application of galactosemia can occur regardless of early diagnosis and early institution of the diet and that these complications can include speech and language delay and neurological deficit?

MR. MISHKIND: Objection. *Go* ahead, Doctor.

A I believe they can occur, but I believe there's also a spectrum of disease and it could have been lessened by the institution of a lactose-free diet as early as possible.

Q But how much it could have been

lessened you would leave up to others who have expertise in the field of metabolic diseases such as galactosis, is that fair?

A Yes.

MR. MARKWORTH: Doctor, I'm done with my questions at this time. Perhaps some of the other counsel may have some questions.

Mr. Jones?

EXAMINATION

BY MR. JONES:

Q Can you hear me all right, Doctor?

A Yes.

Q I'm just organizing my notes.

MR. MISHKIND: Can you hear us?

We've got the jackhammer going on.

Q Doctor, you mentioned this photograph, that Mr. Mishkind said to you, I want to ask you one or two questions about that. Do you have it in front of you?

A Yes.

Q Can you tell, Doctor, or have you been told where that picture was taken?

A I don't recall.

Q Can you tell by looking at the picture

whether it's taken at the hospital or outside the hospital?

A I can't tell.

MR. JONES: Mr. Mishkind, I'm not that familiar with this file, so I'm not sure whether that's been provided in response to any discovery in this case. Has it?

MR. MISHKIND: I'm not sure it's ever been requested, but I will represent on the record that according to the family, who I don't believe were ever asked specifically, but it was taken in the hospital,

MR. JONES: Thank you.

Q Is anyone else in that picture, Doctor?

A No.

MR. MISHKIND: A bed sheet.

Q Is the child on his back or --

A The child is on the back.

Q And what clothing is the child wearing?

A Just a diaper.

Q Doctor, specifically, what is your area of specialization?

A I am a Board certified pediatrician, and a sub Board certified neonatologist.

Q In your areas of practice, Doctor, do you have a text that you sometimes refer to?

MR. MISHKIND: Objection, go ahead.

A Not one particular text, no.

Q But there are a couple of texts that are used in the teaching of pediatrics and neonatology which you consider to be relevant as far as going to to refresh yourself on things if need be?

MR. MISHKIND: Objection.

A There are several texts that are out that I may look things up and use periodically, yes.

Q Since you're not that familiar with galactosemia, Doctor, do you think that you may have gone to one of these texts before preparing your report or before your deposition today?

A Yes.

Q Do you know which text you most likely would have gone to to refresh yourself on galactosemia?

A I have several neonatal textbooks in

my office that I would have -- that I may have looked things up in, although galactosemia is fairly high in the differential of a baby with prolonged hyperbilirubinemia, and especially with the diagnosis of E. Coli information it's right at the top of my list without going to any sources.

Q Would any of those texts in neonatology be reasonable, for instance, to go to to read about galactosemia?

MR. MISHKIND: Objection.

A They would provide some information on galactosemia, sure, yes.

Q If had you gone to one of those texts prior to preparing your report, because you mentioned you did do some literature review but couldn't identify any of the literature?

A Yes.

Q I'm trying to get an idea if you did go to one of these texts, which text or texts would you have gone to, can you identify it by title, and/or author?

MR. MISHKIND: Let me just object because, number 1, I'm not sure that he testified that that was in fact the case. If

he did certainly, he can indicate, but go ahead, respond, Doctor.

A There's --

MR. MISHKIND: First, he wants to know, Mark, you want to know whether he did specifically go to certain texts as opposed to what texts he might have gone to?

Q What I understood, Doctor, let me be sure I'm clear, you're unable to specifically identify any text or journal article anything you want to in preparation of your report or for your deposition today?

A Correct.

Q But you said that you probably did go to some literature -- actually you recall going to some literature or texts prior to your preparing your report and being deposed today, correct?

A Correct.

Q And if I understand it correctly, you would have gone to a text to sort of brush up on things before your deposition or preparation of your report, correct?

A Correct. I have copies of a book by Faniroff as well as by Avery, which I may have used

prior to writing my report.

Q These are two separate texts?

A Yes.

Q One is Avery?

A One is written by Avery -- they're both pretty standard neonatology texts, one edited by Avery, one by Faniroff.

Q Now, as far as keeping current -- with the literature that's coming out on a regular basis in your specialty, Doctor, what are the journals that you regularly go to, as far as keeping current?

A I have subscriptions to Pediatrics, the Journal of Pediatrics, Pediatric Clinics, Neonatal Clinics, Pediatric Annals, New England Journal Every Medicine, those are some of the journals that I have and irregularly read.

Q But you were reviewing the medical literature before preparing your report or coming in for your deposition today, how did you go about that research, did you do a Med-line search on the computer or did you go to sources in your office or in the local library?

MR. MISHKIND: Objection, I'm not

sure he testified that he did research before the deposition. You sort of are lumping report and deposition together. But go ahead and answer.

A Before the report, I had looked up some articles on Med-line on my computer as well as looking through whatever I might have had in my files concerning hyperbilirubinemia.

Q Did you print out your Med-line search?

A No.

Q Bear with me, Doctor, Mr. Markworth covered mostly everything I needed to cover.

Doctor, before I leave this literature area, do you know whether you sent a copy of any of the literature you may have reviewed in this case to Mr. Mishkind?

A I don't believe I did.

Q Do you know what if Mr. Mishkind ever forwarded copies of any literature to you to review in this case?

A No, I never received any from him.

Q Doctor, could you just give me the signs and symptoms of galactosemia in a newborn?

A The signs of galactosemia initially can be just very subtle, being hyperbilirubinemia, and then usually it will progress to something involving liver failure, hepatomegaly abnormal liver functions. Sometimes the babies will become severely hypoglycemic or acidotic, and basically, they just have a progress worsening course.

But, the initial signs can similarly be a prolonged and increasing rise in bilirubin.

Q Is the diagnosis made primarily based upon laboratory data?

A Well, the diagnosis is made by combination of physical findings, suspicion. If a case like this, even though there was a screen done at the time that the baby was born, a state screen, the diagnosis could have been made simply by checking the urine for reducing substances and eliminating glucose as a possible substance in the urine.

So, even though we do an actual enzyme test to make the diagnosis of galactosemia, clearly, based on the suspicion of hyperbilirubinemia and some very simple lab test you could have been pretty confident in that

diagnosis without getting that enzyme test.

Q What is the sensitivity *of* the urine test that you've mentioned?

A I can't say offhand, but I would assume it to be very sensitive, because there are not that many substances that cause this positive test of galactose in the urine, especially since you can eliminate glucose as one of the reducing substances. So, given the fact that I can find a reducing substance in the urine, and I have a baby with hyperbilirubinemia, I would be pretty convinced and I believe that it's a very sensitive test.

Q What kinds of things can interfere with the results of that test, if there are things that can interfere with it, Doctor?

A Well, hyperglycemia, high glucose levels, certain drugs, I believe, can interfere with the glucose oxidation test. But again, it's all given a clinical picture. I think it's a pretty sensitive test.

Q And what is the clinical -- Doctor, you said that it depends upon the clinical picture and what I want to know is what is the clinical

picture in a newborn that requires that a doctor get the test for galactosemia in order to meet the standard of care?

A If I have a baby with unexplained jaundice above the physiological range who is showing some systemic signs of vomiting, lethargy, I believe that at that point, the -- a test should be done to rule out galactosemia.

Q Then, in this particular case, Doctor, on August 17th, when the bilirubin is within the physiologic range, that is, 10.2, and there was no vomiting or lethargy, is it safe for me to assume that it was not necessary to do the test for galactosemia at that time?

MR. MISHKIND: Let me object in your hypotheticals, because you are assuming that certain facts which will be in evidence aren't in that hypothetical. You're asking him to exclude vomiting and lethargy and and just assume 10.2 bilirubin, correct?

MR. JONES: I don't want to have any problems. I admit I don't know this case as well as some of you guys.

MR. MISHKIND: The only reason I said

that, obviously there's inconsistency between records and testimony, but there will be testimony of lethargy, there will be testimony of vomiting from a number of people.

And all I'm saying to you is that in your questions to the doctor, you've asked him to assume 10.2 and you've asked him to assume that there is no lethargy and vomiting.

MR. JONES: Let me step back for a second.

MR. MISHKIND: Okay.

Q Doctor, from the chart, as I understand it, the only indication of anything approaching vomiting or lethargy was on August 15th, correct?

A Correct.

Q And at that time, there was no elevation in the bilirubin as far as we know, correct?

A Correct.

Q So, from the chart, the evidence we have in the record in the treatment of this child,

at the time there was any indication for or inference that could be made regarding vomiting or lethargy, the bilirubin, there's no indication it was out of the normal range and therefore there is no need to take any steps to try to diagnose galactosemia at that time, correct?

A Correct.

Q On the date of discharge, August 17th, is there any evidence in the records that I may admit, that would draw an inference in your mind that there was any vomiting or lethargy in this child?

A There was no report ***of*** vomiting or lethargy on the medical record from the 17th.

Q Going beyond the record, then, to all of the materials you have reviewed, is there anything upon which you draw the conclusion or the inference that while this child was still in the hospital on August 17th, there was any vomiting or lethargy evident?

A Well, the other materials being the depositions of the mother and father, they do report lethargy present on, again, from the day of birth, and that was also present on the 17th.

Q Oh. So, from the parents' report of what they considered to be lethargy at all times, you have that, how about for any evidence of vomiting on the date of discharge?

A I don't have any evidence of that, no.

Q And on the date of discharge, we have a bilirubin that was drawn, correct?

A Correct.

Q That was 10.2, correct?

A Correct.

Q So, even if we take at face value the testimony of the mother and father that in their opinion the child was lethargic on the date of discharge, the fact that there was no evidence of vomiting or an increase of bilirubin beyond the physiologic level, I assume there was no need for the doctors at that point to follow up on galactosemia, correct?

MR. MISHKIND: Let me object to the --

A At that time there was no reason to test for galactosemia.

Q All right, if I've understood where we finally ended up after Mr. Markworth's questioning,

it's not your opinion that this child had to stay in the hospital in order to meet the standard of care, correct?

A Well, what **I** said was that had this baby been examined and information given to the mother that she would come back either that evening or the next day with the baby, then it would have been -- **I** would have felt more comfortable in saying that it would -- was okay to discharge the baby.

But without making that commitment to see the baby again, I believe it was below the standard of care to discharge the patient at that point, without seeing the baby and without making concrete plans to see the baby again.

Q If this child been kept in the hospital, Doctor, what in your opinion was required as far as additional diagnostic testing or treatment of this child from what we have of the child's presentation on the 17th?

A Well, **I** believe at a minimum, a repeat bilirubin level would have been done, which I believe would have shown increasing jaundice. If the baby was in the hospital at that point, it's

probable that the baby may have exhibited some of the other signs that the mother noted, poor feeding, lethargy.

And at that point a decision would have been made to more fully evaluate the baby with a blood count and a blood culture, at which point, I believe they would have isolated a bacteria e. Coli from the blood.

Q You're saying that within three days of birth, within a reasonable medical probability, this child was septic?

A I'm saying this baby was bacteremic three days after birth.

Q From what you understand about the testimony from the mother and father in this case, what was this child's condition on the rest of the day of discharge at home, that is, the 17th, and then the next day, the 18th?

A I believe there was feeding problems and the baby was not very active and had increasing amount of regurgitation, and had decreased feeding as the day wore on and the next day wore on.

Q Now, I wasn't present for all these depositions, so I'm not sure what the testimony

was, but was it an explanation that you understand as to why the mother and father did not contact a Doctor during the rest of the day on the 17th or the 18th?

A I'm not sure.

MR. MISHKIND: I'm not sure that that question was asked. I could tell you what the parents are going to explain when they take the stand, but that would be giving away evidence that I'm not going to share with you.

MR. JONES: You're not going to volunteer that over what --

MR. MISHKIND: Not even going to throw that little carrot out for *you.*

Q As you sit there today you have no understanding as far as why the parents didn't contact a physician during that period of time, correct?

A My only opinion would be that they weren't made aware **of** what the possible complications might be in **a** newborn sent home and they weren't alerted to some of the signs that are worrisome; signs of infection, sepsis,

hyperbilirubinemia, and that's why they didn't call.

Q From what you understand about what the parents have described, would you agree that the child's condition worsened over the next day and a half after discharge?

A Yes.

Q Doctor, having read the deposition of Violet Cory, do you understand that it is her recollection that the mother was contacted about the state screening test for galactosemia while this child was admitted to Metro Health Center in Cleveland?

A Yes.

Q If Violet Cory's recollection is correct, has the doctor's office discharged its duty as far as notifying the patient of the screening test and the necessity for rescreening of this patient?

A I don't believe so, because there was a delay in the notification of the mother about the results of the test.

Q And that delay is what period of time, Doctor?

A I believe it was from the 24th of August to September 6th.

Q And for that period of the delay in this case, can you quantitate in any way the degree of damage done to this child as a result of that delay?

A It's hard for me to quantitate the degree of damage done. I do feel that had the diagnosis and/or suspicion been conveyed on the 24th, that Metro would have had the diagnosis at that point and there would have been -- it would have been less of a question as to why the baby had come in that way. And possibly, there would be a better outcome, although I can't tell from the case.

Q Do you know whether the child had any -- I'm not sure if I'm using the term right, or if I'm using it incorrectly, let me know, but galactose during the early part of the admission to Metro?

A I don't believe the child did, but I believe it was below the standard of care to do a screening test for a potentially damaging lethal disease and not notify anyone concerning the

results of that disease until approximately two weeks after the first notice was made.

Q Okay. I appreciate that, Doctor, but I'm trying to get an idea because I'm not that familiar with these medical problems, as to whether a week-and-a-half to two-week delay has a measurable or quantifiable injury to this child that you can testify to to a reasonable medical probability. That's all I need to know right now.

A I don't believe I could point to a quantifiable medical injury from that two-week delay in diagnosis.

Q Doctor, I take it you have looked at the MRI scan in this case?

A I've only looked at a report of the MRI scan.

MR. JONES: That's all I have, Doctor, thanks.

EXAMINATION

BY MS. REID:

Q I represent Metro Health Medical Center, how are you?

A I'm fine.

Q Just a few questions for you,

Dr. Hand, can you describe your understanding of Steven Maksym's medical status when he arrived at Metro Health Medical Center?

A He was a very ill child, septic and meningitic, thrombocytopenic and liver failure.

Q Is it fair to say he was near death at the time he arrived at Metro?

A Yes.

Q And without appropriate treatment by the physicians at Metro he probably would have died?

MR. MISHKIND: Objection.

A Yes.

MR. MISHKIND: I objected and the Doctor said, "Yes".

(Record read.)

MR. MISHKIND: Thank you. No problem.

Q Is it fair to say, Dr. Hand, that the meningitis from which Steven Maksym suffered was severe enough to result in significant brain damage?

A Yes.

Q Do you have an opinion as to whether

or not the meningitis itself affected his IQ or cognitive ability?

A I believe it probably affected his IQ and cognitive ability.

Q Am I correct that you quantify to what extent it did?

A Correct.

Q How about his motor development, do you have an opinion whether the meningitis affected that?

A Yes, **I** be believe it also affected it, but it's hard to quantify.

Q Meningitis also affected his attentive abilities?

A Yes. Yes, again hard to quantify and differentiate from the galactosemia.

Q Is it your understanding, Dr. Hand, that there's a direct correlation between the amount of galactose which a galactosemic ingests and the extent of injury they will suffer?

A I wouldn't say there's a direct correlation, because even patients who are on galactose-free diets can have some residual damage from their galactosemia. But **I** do believe that in

general, the higher the galactose levels are in the patient, the more damage will be done.

Q All right. What's your understanding, Dr. Hand, of the amount or quantity of galactose Steven Maksym was getting while he was being bottle fed?

A What was that? What time frame are you speaking in?

Q During the time that he was on strict bottle feeding.

A Prior to his arrival at Metro Health?

Q No, even after that?

MR. MISHKIND: You're talking about basically the first nine months or so?

(Record read.)

MS. REID: Exactly, I'm sorry.

MR. MISHKIND: Nine months of life?

A He was on Progestamil and Isomil at that time, so -- which don't contain galactose, so from the bottle feeding, he would be getting a minimal amount of galactose, if any.

Q Okay. Do you have an understanding about the amount of galactose he was ingesting when he went off bottle feeding after the first nine

months of life?

A I'm under the impression that he was fed a rather regular diet, which would contain significant amounts of galactose in it.

Q Where do you glean that understanding?

A Just from the mother's deposition of what he was eating, which sounded like a normal diet consisting of table foods.

Q So in your opinion, there wasn't any limitation on the galactose in his normal diet after the first nine months of life?

A Right, correct.

Q Do you have an opinion as to what point in time the plaintiffs are -- oh, I'm sorry, Steven Maksym began to experience brain injury as a result of galactosemia?

A It's hard to quantify. He probably had high levels of galactose in his system initially, actually, prior to his admission to Metro Health, as he became sicker and could tolerate less feedings. And then when he was on intravenous feedings, his galactose levels were probably low, so there probably was little damage done at that point per se, from actual galactose

levels in the system.

And I would say that as his diet began to normalize and new foods that weren't galactose free were introduced, he was again put at risk, and developed ongoing brain damage from the galactose in the diet.

Q Would you agree, Dr. Hand, that liver damage will occur in a galactosemic patient who receives a chronic or toxic overload of galactose?

MR. MISHKIND: Objection, you're talking about in every patient?

MS. REID: In a galactosemic patient.

MR. MISHKIND: In every galactosemic patient or --

MS. REID: I didn't, in general.

MR. MISHKIND: *Go* ahead and answer, if you can.

A In general, liver damage will occur in a galactosemic patient fed galactose.

Q Do you see any evidence of liver damage in Steven Maksym?

A He had elevated liver enzymes and a coagulopathy which was secondary to liver failure

upon admission to Metro Health.

Q I wasn't clear there, how about permanent liver damage?

A I see no evidence, at this point of permanent liver damage.

Q One second while I look over my notes, Doctor.

Dr. Hand, do you agree that most if not all of the damage suffered by galactosemic patients if left untreated would occur during the first year of life?

A I'm not sure of that, just because of -- because I've never heard of a galactosemic going so long without a diagnosis made, so I'm not sure if there is any literature to that or not.

Q You can't answer that one way or another?

A No.

Q That's all I have. Thanks for your time.

EXAMINATION

BY MR. MARKWORTH:

Q Just a few follow-up questions. You indicated that you have read the nursing

depositions that have been given to you, correct?

A Yes.

Q Based upon your review of the nursing deposition testimony alone, is there any particular nurse there that you're critical of and hold the opinion that she did not meet her applicable standard of care?

MR. MISHKIND: Objection, go ahead.

A There were a couple of instances and I do not recall the names of the nurses. There was one instance, I believe, where the temperature elevation of 37.9 was not reported to the doctor.

There was -- and then there was the whole question of discharge. When should a nurse discharge a patient without writing a discharge note and two, should a nurse write a discharge note without discharging the patient, which I believe are both deviations from proper care.

Q And when you make those statements, and those conclusions, are you relying upon any outside authority, other than your own experience?

A No. It's my experience.

Q In other words, you're not looking to any kind of procedure, protocol, you're not looking

to any kind of guideline or standard promulgated by a hospital or hospital association or any nursing association, is that fair?

A No, it's just common sense.

Q And and in terms of the issue of -- about the discharge note, you're referring to the fact that discharge instructions were given by one nurse and when the shift changed another nurse noted the fact that they were so given by the other nurse. Is that what you're referencing to?

A I would have to look it up and see the actual -- what the actual writing was, but that may be what I'm referencing to.

Q Is there anything else about that --

A I believe that was the problem.

Q But that was the problem that was relevant only to the manner of recording the information, charting it, as it were?

A Yes.

Q Doctor, have you expressed all of your opinions that you expect or intend to give at the time of trial?

MR. MISHKIND: Let me object, I'm not sure that he has been questioned to the full

extent by any of you. His report is a summary of the opinions, but I don't want him being limited if I ask questions on aspects of his opinions that one or more of you haven't questioned him at the time of trial on.

So you can certainly go ahead and answer the question, but I don't want him limited.

A Yes.

Q And you knew and understood that you've been designated as an expert witness and that today was the opportunity for all counsel in this case to obtain what your opinions were and the basis for those opinions, you understood that, correct?

A Yes.

MR. MISHKIND: The reason for my objection, I'm not saying you haven't, but I'm also saying that to the extent that you or one of your colleagues didn't ask him specific questions which he has addressed or opined in his report or aspects of those opinions, that's not my fault, it's yours.

And it's not the doctor's obligation to sit here and just spew out each and every aspect of his opinion, His obligation is to respond to questions that are put to him.

MR. MARKWORTH: Fine, Howard. That's your statement, but my question is --

Q Including your written report of October 1995, and including the testimony here today, to your understanding, Doctor, have you at least touched upon all of the areas that you expect or intend to give testimony in the trial of this action?

A Yes.

MR. MARKWORTH: Nothing further.

MR. MISHKIND: Mark, anything further?

MR. JONES: No.

(Continued on next page.)

MR. MISHKIND: The record should reflect the Doctor will read the transcript, so there will not be a waiver of signature under Ohio rules.

(Whereupon, at 1:45 p.m., the deposition was adjourned as above set forth.)

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IVAN HAND, M.D.

Subscribed and sworn to before me this day of , 1996.

I N D E X

WITNESS	EXAMINED BY	PAGE
Ivan Hand, M.D.	Mr. Markworth	3
	Mr. Jones	66
	Ms. Reid	84
	Mr. Markworth	90

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

I, RENATE REID, a Notary Public of the State of New York, do hereby certify that the foregoing deposition of IVAN HAND, M.D. was taken before me on the 1st day of November, 1996.

The said witness was duly sworn before the commencement of the testimony; the said testimony was taken stenographically by myself and then transcribed.

The within transcript is a true record of the said deposition.

I am not connected by blood or marriage with any of the said parties, nor interested directly or indirectly in the matter in controversy, nor am I in the employ of any of the counsel.

In witness whereof, I have hereunto set my hand and seal of office at the County and State of New York on this 7th day of November, 1996.

Renate Reid

RENATE REID