

1 attention to. So, I'm very bewildered.

2 DR. TAMMINGA: We're asked to pay attention to  
3 the three studies that were presented, 1, 2, and 3.

4 DR. HAMER: What we're actually asked is, is  
5 there evidence from adequate and well-controlled trials  
6 that the drug is safe and effective? I don't know that  
7 we're asked simply to attend to these three trials.

8 DR. TAMMINGA: Dr. Katz.

9 DR. KATZ: Well, the point about there being  
10 perhaps many other trials that are negative is a good one,  
11 and I'm sure the sponsor has been through the literature  
12 and we can probably hear about that.

13 The question of relying on trials that were not  
14 supervised or conducted by a commercial sponsor, when those  
15 are submitted under NDAs, is not an infrequent one. There  
16 certainly is plenty of precedent for our approving a drug  
17 on the basis of a trial that wasn't conducted or supervised  
18 by a commercial sponsor who submits the application. We do  
19 require in those case, almost invariably, that we get the  
20 complete information, the protocol, and that the study be  
21 as well conducted and designed, prospective protocol, as if  
22 it were run by the company. So, there's certainly  
23 precedent for our relying on such trials if they're well  
24 done, if they're appropriately designed, and we have the  
25 data.

1 DR. TAMMINGA: Dr. Fyer?

2 DR. FYER: Yes. Could we address the other  
3 question? Because I'm just not familiar enough with the  
4 literature. Are there in fact other negative trials? And  
5 has the FDA conducted a literature search?

6 DR. TAMMINGA: We did actually see a slide this  
7 morning from Dr. Judge. Maybe you'd like to catch us up  
8 again.

9 DR. JUDGE: These are the other double-blind  
10 studies that have been conducted in PMDD for fluoxetine.  
11 Besides this, there are also a number of open studies which  
12 I won't show here.

13 For all of the other studies not part of the  
14 submission, there is no negative study for fluoxetine in  
15 PMDD. We've also attempted to try and find unpublished  
16 studies, obviously because there tends to be publication  
17 bias with respect to negative studies. We've also tried to  
18 look for negative studies with respect to fluoxetine in  
19 PMDD, and we could not find any as part of our attempts.

20 So, for example, Menkes was a study in New  
21 Zealand. Ozeren's study was a study in Turkey, and Wood  
22 and Stone were also studies in the United States of  
23 America. They all comprised patients with a diagnostic  
24 category of DSM-III-R and therefore of DSM-IV, as you heard  
25 earlier. The duration of the treatment cycles ranged from

1 2 to 3 cycles, and all utilized 20 milligrams daily. All  
2 were positive with respect to the efficacy of fluoxetine in  
3 PMDD.

4 What the open studies showed was further  
5 evidence for that for out longest, showing that perhaps  
6 fluoxetine is effective much, much longer out, and also the  
7 fact that when patients stopped treatment, even after  
a several months, that there can be very quickly a  
9 reemergence of symptoms after stopping treatment. **That's**  
10 the summary of the open-label studies.

11 DR. TAMMINGA: Do you want to speak to why you  
12 chose the first three as part of your NDA?

13 DR. JUDGE: Yes, indeed. We attempted to find  
14 the data for all of the studies, but for these studies  
15 here, we were limited in terms of, first of all, access to  
16 that data, sometimes lack of cooperation from the site for  
17 whatever reason, and also sometimes for missing data, for  
18 example, substantial missing data that was available. So,  
19 we did attempt to go back to all of this data in order to  
20 provide a comprehensive listing. But this is the three  
21 that we felt were of adequate quality, controlled, and we  
22 had access to that data. We had investigator cooperation  
23 and we could show to you.

24 DR. TAMMINGA: Questions, comments for Dr.  
25 Judge? Yes, Dr. Temple.

1 DR. TEMPLE: When you say they were all  
2 positive, what do you mean, that they were in the right  
3 direction or that they attained nominal significance or  
4 what?

5 DR. JUDGE: All of these studies, the other  
6 ones listed here, for example, the two crossover and  
7 parallel design, with respect to the publication, the  
8 primary objective listed in that publication, there was  
9 significant evidence for fluoxetine with statistical  
10 superiority versus placebo.

11 DR. TAMMINGA: One of the things that **we're**  
12 used to seeing from data sets that don't have otherwise  
13 large safety databases is large **n's**. In this particular  
14 study, the **n's** are not as large as what **characteristically**  
15 we're used to seeing. We saw this morning the presentation  
16 of effect sizes, and the effect sizes were impressive. But  
17 still, the overall number of patients is not great.

18 Dr. Dominguez.

19 DR. DOMINGUEZ: Yes, not only the small n sizes  
20 in the other two studies, but the variability of the  
21 inclusion and exclusion criteria. For example, the use of  
22 a structured clinical interviews in some of the trials  
23 versus just the clinical **interview** to exclude Axis I  
24 diagnosis.

25 The failure to obtain a urine drug screen at

1 | the beginning of the trial, knowing that benzodiazepines  
2 | can be helpful for these individuals, and knowing that at  
3 | least at some time during the trial, a number of patients  
4 | did report using benzodiazepines at times, but that was  
5 | just a listed report. One cocaine overdose.

6 |           Again, not knowing the race and ethnic  
7 | background of the individuals in the larger trial. Not  
8 | knowing what previous treatment they had had for PMDD and  
9 | what had worked and what had not worked.

10 |           So, it's the variability in inclusion and  
11 | exclusion criteria which makes this set of studies much  
12 | harder to interpret.

13 |           DR. TAMMINGA: To some extent, **you're** really  
14 | agreeing with Dr. Hamer, that these are studies that are  
15 | more investigator initiated than drug company initiated.

16 |           DR. DOMINGUEZ: And they're valuable, but again  
17 | that variability one has to always adjust for.

18 |           DR. TAMMINGA: One of the things that **I'm**  
19 | wondering how to measure is the effect sizes that were  
20 | reported in studies. I wouldn't mind hearing from some of  
21 | our consultants about that. It would make me think that  
22 | there is some consistency to drug response despite all the  
23 | variability that you're bringing up, that there's a  
24 | consistency and a rather **sizeable** drug response in order to  
25 | get effect sizes like that:

1 DR. PARRY: Well, I know when the DSM-IV was  
2 putting together the database, we looked at different  
3 calculations of effect size, and no matter which way you  
4 looked at the data, you pretty much got the same phenomena.  
5 So, I think that it has been a pretty robust response no  
6 matter which technique has been used.

7 DR. THYS-JACOBS: Effect sizes actually varied  
8 from study to study. Most people use a 50 percent response  
9 as a real response rate. Some studies in PMDD and PMS  
10 actually looked at the visual analog scale scores and  
11 looked at the difference. Not all studies actually looked  
12 at effect size.

13 DR. TAMMINGA: Any more discussion about the  
14 designs of the studies that we had presented? Dr. Temple?

15 DR. TEMPLE: Well, I'm a little curious about  
16 some of the conversation. Obviously, I think Dr. Hamer  
17 shows great wisdom in thinking that the only really  
18 credible trials are the ones we help design.

19 (Laughter.)

20 DR. TEMPLE: And **it's** hard to disagree with  
21 that.

22 (Laughter.)

23 DR. TEMPLE: At least sometimes **we've** had the  
24 view that studies that use **somewhat variable** entry criteria  
25 and yet still get the same result add to the database, and

1 | that replicating the identical finding over and over again  
2 | is perhaps somewhat less interesting than replicating it in  
3 | a variety of settings. I guess I think I at least partly  
4 | believe that, but I'd be interested in the discussion.

5 |           Of course, in general, the more medicines that  
6 | people might be taking that you **don't** know about, the more  
7 | they interfere with showing anything. So, in a sense, even  
8 | that-lack of knowledge is a sign of robustness, although  
9 | also simultaneously makes you nervous.

10 |           But I'd be interested in a little more of that.  
11 | The fact that they were different environments I wouldn't  
12 | say discourages me too much.

13 |           DR. TAMMINGA: Slightly more naturalistic one  
14 | might think.

15 |           DR. TEMPLE: Well, and there was a certain  
16 | trend in that direction.

17 |           DR. TAMMINGA: Crossover design, Dr. Hamer?

18 |           DR. HAMER: **It's** another reason to be  
19 | skeptical. Crossover designs really are a can of worms  
20 | because they're complicated by carryover effects, sequence  
21 | effects, a variety of things like that. In this particular  
22 | design, the fact that with a drug whose principal active  
23 | metabolite has a half-life **that's** probably at least 2 weeks  
24 | and then to have only one menstrual cycle in the middle as  
25 | your recovery, when, in fact, at least in depression we

1 know that fluoxetine requires a number of weeks to even  
2 start working and furthermore, a number of weeks to wash  
3 out, is troublesome.

4           On the other hand, the statisticians and Dr.  
5 Judge were absolutely right. In this particular trial,  
6 whatever carryover effect there was would have tended to  
7 inhibit the ability to show a difference between fluoxetine  
a and placebo rather than exaggerate it, and thus the fact  
9 that they did, indeed, show a difference is reassuring.  
10 But I still **don't** like them.

11           DR. TAMMINGA: I would agree really with Dr.  
12 Temple about the what I would call more naturalistic design  
13 of this group of trials and still seeing a robust drug  
14 response is impressive from my point of view.

15           I was troubled, if you will, to use your word,  
16 Bob, about the low n. But then I sort of looked back at  
17 the data when I was studying it before the meeting.  
18 Although the n is 19, there's really 2 or 3 cycles per  
19 person in order to add up, if you will. So, if I were  
20 doing, for instance, rat studies, we might count that as an  
21 n of 28 or something like that. We have multiple  
22 repetitions in the same person of this phenomenon we're  
23 observing.

24           DR. HAMER: They're not independent of one  
25 another.



1 DR. TAMMINGA: Excuse me?

2 DR. HAMER: They're not independent of one  
3 another, the multiple observations from the same rat or the  
4 same person. So, they're not each another degree of --

5 DR. TAMMINGA: Oh, for sure. But they're a  
6 within-subject replication which is impressive.

7 Dr. Winokur.

8 DR. WINOKUR: I just wanted to ask Dr. Hamer a  
9 follow-up question on his comment to help me understand  
10 better. I understand the general reasons for caution about  
11 interpretation of crossover studies, but it struck me in  
12 initially looking at the data that in this case with the  
13 unique feature of this disorder with the repetitive pattern  
14 with what struck me as being a fairly solid design of  
15 starting with placebo and fluoxetine and then going the  
16 other direction and the results tending to support an  
17 impact of active drug treatment in whichever sequence, with  
18 all of that sorting out, that actually seems to be a  
19 persuasive argument. So, I'm wondering in this case  
20 whether **that's** a particularly appropriate use of this  
21 design, or am I statistically not tuning into something?

22 DR. HAMER: No. In this case, in some sense,  
23 the things that could have gone wrong with this crossover  
24 design would have tended to obscure the drug-placebo  
25 difference. So, the fact that there still was one was

1 nice.

2 But on the other hand, there are plenty of  
3 other reasons not to like crossover trials in general and  
4 including prospectively before you did this, this one. One  
5 is the difficulty of having a long enough washout period in  
6 the middle to know that you really are washing out not just  
7 the drug but the effect of the drug because, for all we  
8 know about things like receptor proliferation and those  
9 sorts of things, there may be a whole lot of things that  
10 need undoing over a long period of time.

11 The other is that if anything goes wrong in a  
12 crossover design, like you have dropouts partially through,  
13 so you don't wind up with people doing the entire, full  
14 design, you may wind up with only the first period  
15 analyzable, in which case you now have simply a parallel  
16 group design with a tiny n.

17 Again, in this case, **it's** reassuring that they  
18 analyzed just the first period data and found a significant  
19 difference because, if you want to, you can sort of  
20 disregard the entire crossover part of the design, and you  
21 still have a supportive study.

22 DR. TAMMINGA: Any other comments or concerns  
23 or extended discussions people would like to have about the  
24 design of the protocol of the data sets that were presented  
25 **to us?**

1 (No response.)

2 DR. TAMMINGA: Any other issues that people  
3 would like to bring up about the data that were presented  
4 to us that speak to the question about efficacy or safety?

5 DR. COOK: I have one comment, and that is this  
6 disorder would presumably start at menarche and they  
7 limited the beginning to age 18. Now, it would be one  
8 thing to suggest this will never be given to someone under  
9 18, but Dr. Parry has said that this is a sometimes  
10 progressive disorder in which it's not clear why one would  
11 withhold treatment until age 18. Obviously, these are  
12 challenging risk-benefit issues, but I don't see  
13 justification for not having studied adolescents,  
14 recognizing that they have reasonable expectation that  
15 there will be off-label use in adolescents.

16 DR. PARRY: Well, except that generally  
17 physical symptoms predominate during adolescence and you  
18 don't see the mood symptoms until -- in most studies, the  
19 average age is 30s. Between like 30 and 38 is the mean age  
20 of symptoms, and they may have been there for 5 years. But  
21 you usually don't see severe mood symptoms during  
22 adolescence.

23 DR. HAMER: Speaking as the father of three  
24 people who used to be adolescents, I would **say that** it  
25 would be pretty hard to tease out mood swings due to

1 | premenstrual dysphoric disorder from the normal mood **swings**  
2 | that are part of adolescence.

3 | DR. PARRY: That's why you need to **2-month**  
4 | prospective documentation.

5 | DR. COOK: I have to object to that one because  
6 | the same thing was said about major depression in  
7 | adolescence and even pre-adolescence. So, particularly  
8 | because you have the timing with the menstrual cycle here,  
9 | you could make that distinction.

10 | But I'm impressed by the age of onset except  
11 | weren't there a lot of **18-year-olds**? In other words, it  
12 | seemed to me there were some young adults being treated,  
13 | and the 18-year-old cutoff was arbitrary.

14 | DR. GELLER: I just wanted to say, as the other  
15 | child psychiatrist here, that we are beginning to tease out  
16 | mood disorders from normal adolescents. I think this goes  
17 | back to the comments that Dr. Winokur was making that the  
18 | labeling here has to really stress differentiating this  
19 | from rapid cycling mood disorders. I think without  
20 | separate study of the adolescent population in this regard,  
21 | that's going to be hard to do because a common presentation  
22 | of bipolar disorder in this age group is to rapidly cycle.  
23 | A lot of those people come in clinically and the parents  
24 | tell you their child has a menstrual disorder. I think  
25 | this is just an age range that is ripe for study and for

1 separate study.

2 DR. TAMMINGA: So, the committee would  
3 certainly like the sponsor to understand that we see  
4 studies of this disorder and this drug in adolescents as  
5 important.

6 DR. GELLER: Yes.

7 DR. TAMMINGA: Do you want to say that more  
8 strongly, Dr. Cook?

9 DR. COOK: I wanted to raise the issue. I hear  
10 now age of onset is different. My concern is exactly what  
11 Dr. Geller says. In largely primary practice, will this be  
12 used off label for this. So, on the one hand, it should be  
13 studied. Until it's studied, I think there should be  
14 strong cautions about its use off label.

15 DR. TAMMINGA: Dr. Katz.

16 DR. KATZ: Yes. I'll just let you know. We  
17 now have regulations that require sponsors to study drugs  
18 in a pediatric population, and they can try and make the  
19 case that for any of the particular subpopulations, the  
20 condition doesn't exist. But to the extent that it does  
21 exist, they're required to do it, and they have to make a  
22 commitment. If those data don't come in with the specific  
23 application, they may have to make a commitment that they  
24 will do it and time lines are imposed and all that.

25 DR. TAMMINGA: So, we can be confident that

1 | you'll receive those data.

2 | DR. KATZ: At some point.

3 | DR. TAMMINGA: Yes, Dr. Geller.

4 | DR. GELLER: I think this has to be built in in  
5 | some way either to post-marketing surveillance or people  
6 | applying for other kinds of funding to look at the **off-**  
7 | label use in the younger population because from what we're  
8 | seeing as child psychiatrists, it's going to be used when  
9 | other diagnoses are more likely.

10 | DR. TAMMINGA: Yes, Dr. Dominguez.

11 | DR. DOMINGUEZ: Another area for further  
12 | investigation that we have heard very little from this  
13 | application is issues of predictors of response. For  
14 | example, I think the agency may want to look at certain  
15 | associated features of PMDD that, although may occur rarely  
16 | as part of the disorder, may serve as predictors of  
17 | response, for example, psychotic-like features during the  
18 | worst time in the **luteal** phase, suicidality, and  
19 | concomitant substance abuse.

20 | The issue of adding the feeling of being  
21 | overwhelmed and out of control to some of the rating  
22 | instruments I think would be important as well because it  
23 | has been my experience, at least clinically, that you do  
24 | find a set of patients with this disorder where that is the  
25 | prominent feature, along with the effect of instability

1 that they present with, that is the most disturbing to  
2 them. Yet, I don't think that was probed at all in the  
3 data that was presented.

4 DR. TAMMINGA: Dr. Fyer.

5 DR. FYER: I just want to make two sort of  
6 comments that concern me, given the small sample size.  
7 That has to do with what's going to happen if and when this  
8 whole thing takes place. It seems to me there are two  
9 issues.

10 One is that the sponsor has gone over this  
11 whole issue about safety. I think that generalizing to the  
12 Prozac or fluoxetine database, it's sort of clear that we  
13 aren't going to have serious, unexpected things given the  
14 age and sex distribution of many people on Prozac is the  
15 same as for this requested indication.

16 On the other hand, the idea this is a chronic  
17 disorder, there's a high relapse rate, people are going to  
18 take this for a long period of time, I would really feel a  
19 lot more comfortable if there were a serious commitment  
20 from the sponsor to look carefully at quality of life  
21 issues. For example, in the FDA's review, it was pointed  
22 out that a certain subset of women gain weight continuously  
23 on this. That can be a serious health issue as well as a  
24 quality of life issue. It would be nice if systematic  
25 studies addressed exactly how can people deal with this and

1 | are there alternative strategies that might help that kind  
2 | of thing, as well as issues of sexual desire.

3 |           The other thing is that it would be in the  
4 | sponsor's power, if the drug were to be granted an  
5 | indication and marketed, to do post-marketing studies that  
6 | would actually look at how the drug was being used and to  
7 | see if there were consequences that might not be in the  
8 | best interests of women in this country. I would think  
9 | that if an indication were to be granted, that a request or  
10 | a requirement from FDA that such work be done, given the  
11 | widespread nature of syndromes related to this requested  
12 | indication, would really be very helpful.

13 |           DR. TAMMINGA: Dr. Geller.

14 |           DR. GELLER: This is another child psychiatrist  
15 | type comment. Can the labeling include something to the  
16 | effect that if underlying conditions are found, they should  
17 | be treated before treatment is initiated just for PMDD?

18 |           DR. TAMMINGA: This is a question to the people  
19 | who design the labels.

20 |           DR. GELLER: Well, it's not looking for a  
21 | specific answer, but that kind of thinking, that at least  
22 | it would encourage people to think if they're going to give  
23 | it off label. Dr. Hamer was just asking me, who's going to  
24 | give it to the adolescents? Is it going to be the  
25 | gynecologist or the pediatrician? Pediatricians are now



1 giving lithium. They won't think anything of giving Prozac  
2 for a menstrual disorder. Perhaps if there were something  
3 in the labeling pointing out that underlying conditions  
4 should be treated first, we might head off some of the --

5 DR. TAMMINGA: Well, certainly in the studies  
6 that were presented, only people who lacked other  
7 conditions actually got into the study. So, you're really  
8 **suggesting** that something be included in labeling that's  
9 consistent with the study data that were presented.

10 DR. GELLER: Right.

11 DR. KATZ: Certainly there's precedent for  
12 putting statements in labeling about **it's** off-label use,  
13 but usually when there's an affirmative finding that there  
14 is a safety problem in whoever those people are or there's  
15 evidence that it doesn't work in those people, those are  
16 the two circumstances I can think of where we 'put  
17 statements in labeling about off-label use.

18 DR. GELLER: I wasn't suggesting this is **off-**  
19 label use. I just meant for all age groups that there be  
20 some statement that emphasizes that we really don't have  
21 data on what happens if you treat an underlying condition  
22 first. As usual, the sample that was studied was  
23 relatively pristine in terms of comorbid disorders that  
24 occur commonly when you have PMDD. I'm going back again to  
25 Dr. Winokur's emphasis on people who may be having a

1 | bipolar depression, getting the drug for that and then  
2 | having an exacerbation of their bipolar phase.

3 | DR. WINOKUR: Actually, since you mentioned  
4 | that again, let me make sure. That was only part of what I  
5 | said, not to have the other part left out. I'm also  
6 | concerned about inadvertently discovering a new phenomenon,  
7 | which is people who don't have formally bipolar disorder  
8 | **that is** just not detected, but have a different form of  
9 | cyclic mood disorder, namely PMDD, in whom a small subset  
10 | but not yet detected or appreciated might be stimulated in  
11 | the hypomanic or manic direction by a drug like fluoxetine.  
12 | Again, we don't have any data yet to suspect that to be the  
13 | case, but I think that from other clinical experiences,  
14 | that's a lesson that we've learned to be very cautious  
15 | about. I think if it is going to get out there more widely  
16 | in a broader population, that's one area that we don't  
17 | really have adequate data to judge in my opinion.

18 | DR. TAMMINGA: Dr. Parry.

19 | DR. PARRY: There's just one safety issue, and  
20 | this is not what was brought up this morning. But in  
21 | reviewing the materials I was sent, I just thought the  
22 | description of the use in pregnancy could have been more  
23 | specifically delineated. For example, there's the  
24 | Pastuszek study and the Chambers study. Though there's no  
25 | major teratogenic effects, the fact that mothers who are

1 | taking fluoxetine, their children are in the intensive care  
2 | unit and they had more respiratory distress and lower birth  
3 | weight and that kind of thing, I thought for safety reasons  
4 | should be given attention.

5 | DR. TAMMINGA: Except that PMDD is not a  
6 | disorder that occurs in pregnancy, so there would be no  
7 | reason to treat it during pregnancy.

8 | DR. PARRY: Yes, but you have to address that  
9 | in a labeling issue, and if a woman becomes pregnant and  
10 | **she's** on it, that's part of the presentation.

11 | DR. TAMMINGA: Any more comments of any kind  
12 | about the issue in front of us? Dr. Katz?

13 | DR. KATZ: Yes, I have another question before  
14 | you vote. **It's** sort of under the heading of maybe a  
15 | theoretical labeling question again. You know **we're**  
16 | obviously very interested in labeling, and you may just  
17 | advise us to do the usual good job that we do. And I  
18 | appreciate that in advance.

19 | (Laughter.)

20 | DR. KATZ: But **I'd** just be interested in some  
21 | of your thoughts on the following.

22 | Suppose that you have concluded or do conclude  
23 | that there is evidence of effectiveness. **It's** possible I  
24 | suppose to see that effectiveness as just really  
25 | **fluoxetine's** antidepressant effect, and that in some sense

1 | it could be considered a global antidepressant in that it  
2 | has been studied up till now in major depressive disorder.  
3 | Now **it's** being studied in a considerably different disorder  
4 | but that has primarily an affective component. And right  
5 | now the drug is approved as an antidepressant and then the  
6 | labeling describes in whom it has been studied, major  
7 | depressive.

8 |           One theoretical option, I suppose, for labeling  
9 | would be to leave the indication as an antidepressant and  
10 | then list after **what's** currently listed, which is **it's** been  
11 | studied in major depressive disorder, and now say, well,  
12 | **it's** also been studied in another sort of depression-like  
13 | syndrome, as opposed to giving it its own PMDD claim. I  
14 | just wonder what people think about that.

15 |           DR. PARRY: Well, I think **it's** important to  
16 | recognize that premenstrual dysphoric disorder is  
17 | categorized as a major depressive disorder, N.O.S.

18 |           DR. KATZ: Well, **that's** sort of what I'm  
19 | asking. In other words, again if you find **it's** safe and  
20 | effective, we could choose to label this as a specific  
21 | treatment for PMDD in addition to its current indication,  
22 | or we could subsume under its currently existing  
23 | indication. **That's** the question I'm asking. I'm  
24 | interested in your views on that.

25 |           DR. TAMMINGA: Dr. Geller.

1 DR. GELLER: Just educate us. What would be  
2 the down side of doing that?

3 DR. KATZ: Well, it would imply a couple of  
4 things. Number one, that PMDD is a type of depression, a  
5 type of depressive disorder, and it would imply that the  
6 drug is sort of a global antidepressant and it works in any  
7 setting in which a patient happens to be depressed, whether  
8 it's major depressive, whether it's a cyclical entity,  
9 perhaps even others which haven't been studied.

10 So, I don't know that there's a down side or an  
11 up side. We are going to have to deal with this question,  
12 and I'm just interested to know what people think.

13 DR. PARRY: I can just see, women who have  
14 premenstrual dysphoric disorder often don't like to  
15 acknowledge that this is a major depression. I'm just  
16 trying to think ahead about the potential consequences.

17 On the other hand, if you just propose it  
18 specifically for premenstrual dysphoric disorder, I guess  
19 my concern would be that any woman with any kind of minor,  
20 cyclic physical symptom that may or may not be related to  
21 the menstrual cycle might see this as a panacea.

22 DR. TAMMINGA: Dr. Laughren.

23 DR. LAUGHREN: Except that in writing labeling,  
24 we would rely very heavily on the diagnostic criteria for  
25 PMDD to describe the type of patient who would be a

1 candidate, including functional impairment as part of that.  
2 So, we would work very hard to avoid that possibility.

3 DR. PARRY: Yes. I'm just thinking of the  
4 potential abuses that may occur irrespective of that.

5 DR. TAMMINGA: Dr. Cook?

6 DR. COOK: Yes. I would be much more  
7 comfortable with a PMDD labeling. I think **that's** what we  
8 were-here to discuss, and I think that actually there's  
9 probably confusion out there in terms of PMDD being just  
10 depression. I thought there was data presented -- and  
11 certainly the epidemiology that isn't all that was  
12 presented today -- to suggest that this is a distinct  
13 disorder. This would not be like saying it works for  
14 melancholic depression as well as other depression. So, I  
15 think this would be reasonable with the caveats that this  
16 is not PMS treatment, but PMDD, to have it distinct.

17 DR. TAMMINGA: Dr. Winokur.

18 DR. WINOKUR: I think we've heard a lot of  
19 comments from the experts and from the general committee  
20 that recognize PMDD to be a discrete and recognizable,  
21 diagnosable entity. I think increasingly in our field and  
22 in communication to more family practitioner types, **we've**  
23 been trying to emphasize precision or care in diagnosis  
24 prior to treatment. So, I think that going from data and  
25 having discrete, delineated syndromes as a guide to

1 treatment rather than encouraging the older pattern of very  
2 broad spectrum triggers for treatment is really something  
3 **we're** trying to encourage. I would much more see the  
4 specific indication as being in that dimension.

5 DR. TAMMINGA: Dr. Fyer.

6 DR. FYER: I agree with what has been said  
7 about the diagnosis.

8 I think that **there's** an additional educational  
9 issue which I think is positive, but I am concerned about  
10 what Dr. Parry raised. I have a question for the FDA  
11 **people**, and that is, to what extent is it within your  
12 power, in addition to just labeling about PMDD, to actually  
13 structure interactions between pharmaceutical  
14 representatives, et cetera so that there is real education  
15 about this sort of limitation, as opposed to something  
16 **that's** on a package label someplace that a lot of people  
17 **don't** read?

18 DR. LAUGHREN: The promotion has to be very  
19 closely linked to what's in the label. So, to a great  
20 extent, that does control the level of promotion that can  
21 go on outside of labeling.

22 DR. FYER: Somehow, though, we all know that in  
23 the long run there seems to be an enormous amount of **what's**  
24 called off-label usage, and maybe again something that  
25 could be considered is some post-marketing survey aspects

1 | to see because I think there is a widespread potential here  
2 | for something that I don't think anybody is particularly  
3 | interested -- at least people in medicine probably not  
4 | interested in having unnecessary expense and side effects  
5 | and maybe missing things that would be treatable by other  
6 | perhaps psychotherapeutic interventions.

7 | DR. LAUGHREN: Again, I share that concern. As  
8 | I said earlier, **we'll** go to great lengths to try and define  
9 | the population that we think are candidates for this  
10 | treatment. Beyond that, **it's** hard to know what FDA can do.  
11 | We **don't**, of course, regulate the practice of medicine, so  
12 | we can't control off-label use in that sense. But we will  
13 | try and write labeling that directs clinicians to what we  
14 | think is the target population.

15 | DR. FYER: You could possibly also ask the  
16 | sponsors to participate in some post-marketing assessment  
17 | of exactly **what's** going on.

18 | DR. KATZ: I **don't** know if we could, and even  
19 | if we could -- let's assume we learned that there was a lot  
20 | of off-label use going on. **It's** hard to know what we would  
21 | be **able to** do about it.

22 | DR. FYER: Publish it so that people are aware  
23 | that **that's** going on --

24 | DR. KATZ: Well, a lot of off-label use is  
25 | published. People think **it's** a good idea.



1 DR. FYER: Some of it is.

2 DR. KATZ: Well, right, right.

3 DR. FYER: Yes, and some of it isn't.

4 DR. KATZ: We could even in labeling put, just  
5 as another thing **that's** possible to do, a patient package  
6 insert in there which also tells the patient that this is  
7 for PMDD. **It's** not for mild symptoms of PMS. Now, whether  
8 or **not that's** actually going to affect people's behavior is  
9 another patient, but you can attempt to inform the patient  
10 as well as the prescriber.

11 DR. FYER: I mean, there is a trend, especially  
12 with the Internet, for increasing amounts of consumer sort  
13 of self-awareness and stuff. So, something like that might  
14 in fact be useful.

15 DR. TAMMINGA: Dr. Temple, did you want to log  
16 in?

17 DR. TEMPLE: Well, do I recall correctly that  
18 this will have special packaging, a different name, et  
19 cetera?

20 That really does open the possibility of a  
21 patient insert that is targeted to the population. It  
22 reminds them that they should think about whether they want  
23 to be on a chronic drug and that their symptoms are severe  
24 enough to warrant it. That very situation is one of the  
25 conditions in which we believe patient labeling is

1 important, where there's a decision that the patient really  
2 needs to participate in actively. In this case, you don't  
3 have to label all of the uses of Prozac. You can just  
4 label this one perhaps.

5 So, we'll think about that. Special packaging  
6 and labeling is a point of some controversy internally I  
7 should tell you.

8 DR. TAMMINGA: Unless there's further  
9 discussion, I would suggest we move ahead to a vote.  
10 Although we've certainly appreciated all the comments of  
11 the consultants, the consultants won't vote on the final  
12 efficacy and safety questions.

13 So, the first question that the committee will  
14 want to vote on is, has the sponsor provided evidence from  
15 more than one adequate and well-controlled clinical  
16 investigation that supports the conclusion that fluoxetine  
17 is effective for the treatment of premenstrual dysphoric  
18 disorder?

19 I think we just ought to go around the room.  
20 Maybe we'll start with you, Dr. Dominguez.

21 DR. DOMINGUEZ: I believe that there are some  
22 limits to the generalizability of the data that was  
23 presented with respect to race, with respect to ethnic  
24 groups. Essentially the patient samples that we have been  
25 presented today are in non-minority whites, and it appears

1 | from the sample that clearly the drug is effective for the  
2 | indication that is proposed. I think that this is a  
3 | clearly distinct disorder. So, it should be labeled as  
4 | such for this disorder.

5 | DR. TAMMINGA: Dr. Hamer.

6 | DR. HAMER: As uncomfortable as I am with the  
7 | set of studies that wasn't generated in the usual way, yes.

8 | DR. TAMMINGA: Dr. Geller.

9 | DR. GELLER: Yes, with the proviso that the FDA  
10 | do its usual outstanding job of writing the labels to take  
11 | into account the discussion.

12 | DR. TAMMINGA: Dr. Cook.

13 | DR. COOK: Yes.

14 | DR. TAMMINGA: Dr. Winokur.

15 | DR. WINOKUR: I vote yes.

16 | If I can editorialize for a minute, I'm  
17 | incredibly distressed about the circumstances of the second  
18 | positive study that we had to consider with the  
19 | investigator unilaterally interrupting the study. I  
20 | realize that that was not at all Lilly's doing. I think  
21 | the data that we are left to consider are overall  
22 | convincing enough. But I think it's an extremely dismaying  
23 | circumstance, and I think it's the kind of thing that  
24 | really can interrupt the progress of the kind of science  
25 | that we need to make these kinds of decisions.

1 DR. TAMMINGA: Dr. Fyer?

2 DR. FYER: I would vote yes with two provisos.

3 One, Dr. Geller's and that be taken seriously.

4 I'd like to say that I also found this  
5 circumstance distressing and I found the sponsor's  
6 presentation of the data from that trial distressing. I  
7 would hope that in the future such things will be dealt  
8 with in a much more straightforward fashion in sort of due  
9 respect to the members of the committee and the public.

10 DR. TAMMINGA: And I vote yes as well with many  
11 of the same caveats as people have talked about before, but  
12 having some interest in the more naturalistic kind of data  
13 that we saw today.

14 The second question. Has the sponsor provided  
15 evidence that fluoxetine is safe when used in the treatment  
16 of PMDD?

17 Dr. Dominguez?

18 DR. DOMINGUEZ: Yes.

19 DR. TAMMINGA: Dr. Hamer.

20 DR. HAMER: Yes, attending in particular to the  
21 sorts of things Dr. Winokur has talked about.

22 DR. TAMMINGA: Dr. Geller.

23 DR. GELLER: Yes.

24 DR. TAMMINGA: Dr. Cook.

25 DR. COOK: Yes.

1 DR. TAMMINGA: Dr. Winokur.

2 DR. WINOKUR: Yes.

3 DR. TAMMINGA: Dr. Fyer.

4 DR. FYER: Yes.

5 DR. TAMMINGA: Dr. Tamminga, yes.

6 I think we've had a day and an afternoon where  
7 we've discussed an important issue, both an indication and  
8 a drug. We've discussed perhaps, at least for our group, a  
9 new style of data, if not necessarily for groups in  
10 general. And we've taken a vote and concluded the meeting.

11 Thank you all very much.

12 (Whereupon, at 3:15 p.m., the committee was  
13 adjourned.)

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