Protocol for DSM-5 Field Trials in Routine Clinical Practice Settings

I. Objectives:

The DSM-5 Field Trials in Routine Clinical Practice settings will focus primarily on: 1) the feasibility and clinical utility of the proposed modifications to the diagnostic criteria for a broad range of disorders, and 2) the feasibility and clinical utility of the cross-cutting and diagnostic-specific dimensional measures that are incorporated into the diagnostic scheme for DSM-5. In addition, these field trials will examine the ability of these cross-cutting and diagnostic-specific severity dimensional measures to capture changes in patients' symptom levels over time. More specifically, the DSM-5 Field Trials in the Routine Clinical Practice settings will seek to answer the following questions:

Diagnostic Criteria

a. Are the proposed diagnostic criteria easy to understand and use by the clinician?
b. Do clinicians find that the proposed diagnostic criteria accurately reflect or capture their patients' symptom presentations?
c. Are the proposed diagnostic criteria useful/helpful to the clinicians in planning treatments for patients?

Diagnostic-specific Severity Measures

a. Are the diagnostic-specific severity measures easy to understand and incorporate into the clinical evaluation of patients?
b. Are the diagnostic-specific severity measures reliable?
c. Are the diagnostic-specific severity measures useful/helpful to clinicians in planning treatments for patients?
d. Are the diagnostic-specific measures able to capture change in the severity of symptoms over time (*i.e., sensitivity/responsiveness to change*)?

Cross-cutting Dimensional Measures

a. Are the cross-cutting dimensional measures easy to understand and incorporate into the clinical evaluation of patients?
b. Are the cross-cutting dimensional measures useful/helpful to clinicians in planning treatments for patients?
c. Are the cross-cutting dimensional measures able to capture change in the severity of symptoms over time (*i.e., responsiveness to change*)?

II. Methodology:

Design: The study will be primarily cross-sectional in nature but will incorporate one longitudinal component involving a follow-up visit at 4 to 12 weeks after the baseline evaluation. The 4-to-12 week follow-up visit will be used to assess the ability of the cross-cutting dimensional and the diagnostic-specific severity measures to capture changes in patients' symptomatology over time (*i.e., scales' responsiveness to change*).

Sampling of clinicians: The field trials in the Routine Clinical Practice settings will involve a representative sample of psychiatrists who will be randomly selected from the American Medical Association (AMA) Masterfile of Physicians and a volunteer sample of clinicians including psychiatrists, psychologists, social workers, counselors, marriage and family therapists, and advanced practice psychiatric-mental health nurses (see Figure 1).

1. *Representative Sample of Psychiatrists:* The representative sample of psychiatrists will consist of 1,000 randomly sampled general psychiatrists, plus a representative stratified sample of an additional 100 geriatric psychiatrists, 100 addiction psychiatrists, and 200 child psychiatrists all selected from the AMA Masterfile of Physicians. This will result in a representative sample of 1,400 psychiatrists. To obtain the required representative sample of psychiatrists, random sampling without replacement will be used. Sampling will continue until the required sample size is attained. Information on reason for refusal will be documented.

2. *Volunteer Sample of Clinicians:* The volunteer sample of clinicians will consist of 3,500 clinicians including 1,000 psychiatrists, 500 psychologists, 500 licensed clinical social workers, 500 licensed counselors, 500 licensed marriage and family therapists, and 500 advanced practice psychiatric-mental health nurses. The volunteer sample of psychiatrists will be recruited via announcements on the www.dsm5.org Web site, in APA publications and newsletters, and at APA meetings. Similar methods will be used to recruit clinicians in the other disciplines. If a volunteer clinician is also randomly selected, he/she will be included in the randomly selected group.

Each participating clinician will be recognized in DSM-5 as a contributor and will receive CME credits for completion of the DSM-5 training session. Additional incentives may be offered to clinicians in the randomly selected samples to achieve a high level of participation.

Sampling frame exclusions: The sampling frame from the AMA Masterfile of Physicians will exclude:

- members of the DSM-5 Task Force and Work Groups,
- advisors to the DSM-5 process,
- clinicians who worked in any of the large DSM-5 Field Trial sites, and
- clinicians who participate in any of the DSM-5 pilot or procedural studies.

Clinicians who are members of the DSM-5 Task Force and Work Groups and advisors to the DSM-5 process are excluded from the sampling frame to reduce the chance of real or perceived bias in the results because of their vested interest in the proposed diagnostic criteria and dimensional measures being shown to be feasible and clinically useful. As well, clinicians who work in any of the large DSM-5 Field Trial sites or pilot studies will be excluded from the sampling frame for these field trials to reduce the chance of double counting and giving such clinicians a greater probability of being included.

Eligibility criteria: Eligible clinicians include all practicing clinicians who:

- are English-speaking,
- have computer skills and Internet access to enable use of our online data collection system,
- are willing to complete the mandatory DSM-5 Training seminar (i.e., a Web cast) and associated questionnaire,
- see 1 or more new patients per month (note: “new patient” refers to one who is being seen by the participating clinician for the first time),
- are willing to explain the study and seek informed consent from randomly selected patients to participate in the study, and
- are willing to schedule the follow-up appointments for participating patients within 4-12 weeks following the initial evaluation

Sampling of patients: Each participating clinician (i.e., randomly selected and volunteer clinicians) will enroll 1 existing patient and 1 new patient into the field trial within a 3-month period after completion of the DSM-5 Training session. These patients will be systematically selected using an established strategy used by members of the APA's Practice Research Network (PRN) to select representative samples of patients in previous studies (see Figure 1).

III. Procedures:

Clinician Training: All clinicians who agree to participate in field trials will be asked to complete a DSM-5 Training Session. The training session will be conducted via webinar and will focus on the major changes in the DSM-5 including new disorders, new diagnostic criteria, and the cross-cutting dimensional and diagnostic-specific severity measures, and the methods that will help each participating clinician to integrate them into his or her clinical practice for the study. The training session will incorporate Human Subjects Training to ensure that each participating clinician is certified to obtained consent from his/her patient. In addition, participants will be oriented to the electronic data collection system, including diagnostic checklists, which will be used in DSM-5 Field Trials.

Each participating clinician is required to complete the DSM-5 training session before the clinician is allowed to enroll his/her patients in the study, and patient enrollment must occur within three months following completion of the training session.

Patient informed consent: The process for consenting new and existing patients will be the same but will occur at different points in time during the study.

1. For **new patients**, the consenting process will occur during the baseline visit before the patient has completed the self-rated level 1 and indicated level 2 measures and before the start of the clinical interview (see Figure 2). If the new patient consents to participate in the study, he/she will be enrolled and the clinician will proceed with the baseline study visit clinical interview and assessments. However, if the new patient does not agree to participate in the study, the clinician will be asked to log the reason for refusal as well as basic non-identifying information (e.g., age, sex, primary diagnosis, and whether or not co-morbid mental health conditions exists).

2. For **existing patients**, the consenting process will occur at the end of the systematically selected patient's routine office visit (see Figure 2). If the existing patient consents to participate in the study, his/her baseline study visit will be scheduled no later than one month following the consent visit. If the existing patient does not agree to participate in the study, the clinician will be asked to log the reason for refusal as well as basic non-identifying information (e.g., age, sex, primary diagnosis, and whether or not co-morbid mental health conditions exists).

Assessment measures: All assessment tools that will be utilized in this study (i.e., patient- and clinician-rated forms) will be available only in electronic forms. These assessment tools will include the cross-cutting dimensional measures, the DSM-5 diagnostic checklist, the list of diagnostic-specific severity measures, and the Clinical Utility Questionnaire. The feasibility of these assessment methods will be pilot tested prior to the start of the Field Trials.

Patient assessment: Each participating clinician will see each of his or her enrolled patients for two study visits. This will include a baseline study visit and a follow-up visit 4-12 weeks later. Below, the steps for each visit are outlined and illustrated in Figures 2 and 3:

The Baseline Study Visit (see Figure 2)

1. At the **baseline study visit**, the selected new patient and existing patient who provided written consent will be asked to complete the self-rated level 1 and indicated level 2 cross-cutting measures before seeing his/her clinician.

2. Before the start of the clinical interview for each **new patient**, the clinician will inform the patient about the DSM-5 Field Trial (i.e., what is involved, the risks and benefits, etc.) and then ask him/her if he/she is interested in participating. The **new patient** will be informed that his/her assessment and treatment will not be affected if he/she does not agree to participate in the field trial study.

   a. **If a new patient does not agree to participate** in the field trial, the clinician will be asked to log basic information (e.g., age, sex, primary and comorbid diagnoses, and reason for refusal if available) and the new patient's assessment and treatment will otherwise continue as usual for the clinician.

   For consenting new and existing patients, the clinician will:
   i. complete the consent form with the patient,
   ii. examine the patient's self-rated cross-cutting measures,
   iii. if necessary, complete any indicated clinician-rated level 2 cross-cutting measures,
   iv. perform a clinical diagnostic evaluation
   v. document all of the patient's diagnoses using a DSM-5 checklist of the draft diagnostic criteria,
   vi. complete any indicated diagnostic-specific severity measures,
   vii. formulate a treatment plan for the patient per the clinician's usual routine, and
   viii. address any concerns or psychological distress that may have arisen during the assessment and ensure the patient's safety before ending the visit.

3. The patient must be seen for a follow-up study visit 4 to 12 weeks after the first study visit. ***This does not preclude the scheduling of any clinically-indicated visits prior to the 4-12 week follow-up study visit.***

4. **After the patient visit,** the clinician will complete the Clinical Utility Questionnaire.

The 4-12 week follow-up Study Visit (see Figure 3)

1. At the **4-12 week follow-up study visit**, the enrolled patient will again complete the self-rated level 1 and indicated level 2 cross-cutting measures before being seen by the clinician.

2. During the clinical interview, the clinician will:
   i. examine the patient's self-rated cross-cutting measures,
   ii. if necessary, complete any indicated clinician-rated level 2 cross-cutting measures,
   iii. review the patient's DSM-5 diagnostic checklist,
   iv. assess the patient's current clinical status including symptom severity and response to treatment, per clinician's usual routine,
   v. complete any indicated diagnostic-specific severity measures,
   vi. review his/her treatment plan and needed prescriptions with the patient per the clinician's usual routine, and
   vii. address any concerns or psychological distress that may have arisen during the assessment and ensure the patient's safety before ending the visit.

3. Following the end of the 4-12 week follow-up visit, the clinician will complete the Clinical Utility Questionnaire.

IV. Data Analysis:

The analytic strategy will be presented on a broad category basis. All analyses will be conducted using SAS statistical software (see Table 1). In addition, SAS macro (%QLS) will be used to conduct the quasi-least squares (QLS) computational approach for estimation of the correlation parameter in GEE analyses for data with multiple sources of correlation.

1. *Feasibility:* Feasibility will be assessed by examination of clinician and patient participation rates and reasons for refusal. As well, the overall and item response rates for the patients' self-rated level 1 and level 2 cross-cutting measures as well as the clinician-rated level 2 cross-cutting and diagnostic specific measures will be examined as indicators of feasibility for the incorporation of the measures into the diagnostic scheme for DSM-5. In particular, analysis will be primarily descriptive, e.g., frequency distributions and measures of central tendency (means and their associated standard deviations, modes and median) with some comparisons based on clinicians' and patients' characteristics. The results will be used to further refine the content of the assessment battery. In addition, descriptive analyses will be conducted on clinicians' reports on the ease of use and understanding of the diagnostic criteria and associated checklist, the diagnostic-specific severity measures, and the cross-cutting dimensional measures.

2. *Clinical Utility:* Descriptive statistics will be used to describe the range of subjective and objective responses obtained in the clinical utility component of the study. In addition, common themes will be identified in the open-ended responses and reported. The results of the subjective and objective reports will be compared using appropriate descriptive and multivariate analyses controlling for clinicians' characteristics such as age, sex, specialty, and years in practice.

3. *Sensitivity/Responsiveness to Change:* Paired (repeated measure) t-tests, with correction for multiple comparisons, will be used to examine sensitivity/responsiveness to change of the cross-cutting and the diagnostic-specific severity measures. However, given the fact that variation in follow-up time is likely to occur, given the flexibility the clinicians will have in scheduling their patients for the follow-up assessments, mixed models for longitudinal data (linear for continuous outcomes and logistic for categorical outcomes) may also be used to examine sensitivity to change for each severity measure with adjustment for age and sex. The mixed model approach is more robust and less sensitive to missing data and variations in follow-up time. For mixed models, the model building guidelines outlined in Verbeke and Molenberghs (46) will be followed (*i.e., 1. model the structure of means using fixed effects; 2. specify a covariance structure both between subjects and within subjects; 3. fit the means model accounting for the covariance structure specified; and 4. make tests and inferences, including simplifying the means model if possible*).

The degree to which participants' ratings of change in severity of symptoms is related to clinicians' ratings of change in severity for the same symptoms is important in determining the potential utility of these patient-rated measures in routine clinical practice. This will be examined using linear regression within a generalized estimating equations (GEE) framework. However, a QLS computational approach

for estimation of the correlation parameter will be used, instead of the conventional approach in GEE analyses, given its advantage in handling data with multiple sources of correlation as would be involved with these data (i.e., correlation involved in repeated patient assessment, in repeated clinician assessment, and the impact of clinicians' knowledge of patients' self-rating of symptom severity prior to their assessment of patients' symptom severity).

V. Sample Size and Power:

These field trials will enable the examination of the distribution of psychiatric diagnoses across Routine Clinical Practice settings in the U.S. The samples of 1,400 randomly selected and 3,500 volunteer practicing clinicians will each provide greater than 80% power to detect disorders with prevalence estimate of 0.1 to 0.8 with a confidence interval of 95% separately for the 2 groups. Using clinically significant change in severity of depression as an example [using 5-point change on the PHQ-9 as an established indicator of clinically significant change (35)], a sample size of 15 patients per disorder is needed to allow us to have sufficient power (beta = 0.20) to detect clinically significant disorder-specific changes in severity even with adjustments for age and sex. Power Analysis and Sample Size software was used to determine the sample size and power.

VI. Dissemination strategy:

Knowledge translation will occur throughout the project. This will include using the information to inform revision of the diagnostic criteria for the disorders relevant to this study. In addition, the results will be shared with relevant professional and consumer groups for their feedback so as to inform the DSM-5 process. Dissemination of the results of the study will also occur at local, national, and international scientific meetings by members of the research team. Reports on the results of this study will also be disseminated in the form of publication in peer-reviewed scientific journals as well as the DSM-5 source books.

Table 1: Outline of data per visit, their use in the study and analytic methods (done separately for random and volunteer samples).

Objectives	Data Source	Visits		Analytic methods
		1	2	
a. Are the proposed diagnostic criteria and associated checklist easy to understand and use **by clinician?**	Clinical Utility Questionnaire (CUQ)	X		Descriptive statistics, some comparative analyses based on clinician characteristics.
b. Do **clinicians** find that the proposed diagnostic criteria accurately reflect/capture their patient's symptom presentation?	CUQ	X		Descriptive statistics, some comparative analyses based on clinician and patient characteristics.
c. Are the proposed diagnostic criteria and associated checklist useful/helpful to **clinicians** in planning treatments for patients?	CUQ	X	X	Descriptive statistics, some comparative analyses based on clinician and patient characteristics.
d. Are the diagnostic-specific severity measures easy for clinicians to understand and incorporate into their clinical evaluation of patients?	Overall and item response rates	X	X	Descriptive statistics, some comparative analyses based on clinician and patient characteristics.
	CUQ	X	X	Descriptive statistics, some comparative analyses based on clinician and patient characteristics.
e. Are the diagnostic-specific severity measures useful/helpful to clinicians in planning treatments for patients?	CUQ	X	X	Descriptive statistics, some exploratory comparative analyses based on clinician and patient characteristics
f. Are the diagnostic-specific severity measures able to capture change in the severity of symptoms over time (*i.e., responsiveness to change*)?	Results of clinician completed diagnostic-specific severity measures	X	X	1. Descriptive statistics, some exploratory comparative analyses based on patient characteristics. 2. Paired t-tests (with Bonferroni correction); mixed models if great variation in timing of the follow-up visit and significant missing data 3. Linear GEE Analyses with QLS estimation of the correlation structure
g. Are the cross-cutting dimensional measures easy to understand and incorporate into the clinical evaluation of patients?	Overall and item response rates	X	X	Descriptive analyses, some comparative analyses based on clinician and patient characteristics
	CUQ	X	X	Descriptive analyses, some comparative analyses based on clinician and patient characteristics
h. Are the cross-cutting dimensional measures useful/helpful to clinicians in planning treatments for patients?	CUQ	X	X	Descriptive statistics, some exploratory comparative analyses based on clinician and patient characteristics
i. Are the cross-cutting dimensional measures able to capture change in the severity of symptoms over time (*i.e., responsiveness to change*)?	Results of patient self-rated level1 and level 2 cross-cutting measures	X	X	1. Descriptive statistics, some exploratory comparative analyses based on patient characteristics. 2. Paired t-tests (with Bonferroni correction); mixed models if great variation in timing of the follow-up visit and significant missing data 3. Linear GEE Analyses with QLS estimation of the correlation structure
	Results of clinician completed level 2 cross-cutting measures	X	X	1. Descriptive statistics, some exploratory comparative analyses based on patient characteristics. 2. Paired t-tests (with Bonferroni correction); mixed models if great variation in timing of the follow-up visit and significant missing data 3. Linear GEE Analyses with QLS estimation of the correlation structure

Figure 1. Overview of Study Process

Sampling and recruitment of clinicians:

1. *Sampling frame:* Psychiatrists listed in the AMA Masterfile of Physicians and a volunteer sample of clinicians including psychiatrists, licensed psychologists, licnesed clinical social workers, licensed counselors, licensed marriage and family therapists, and advanced practice psychiatric-mental health nurses, with exclusion of members of the DSM-5 Task Force and Work Groups, clinicians who work in any of the large DSM-5 field trial sites, and clinicians who participate in any of the DSM-5 pilot or procedural studies.
2. *Inclusion criteria:* All practicing clinicians who i) are English-speaking, ii) have at least minimal computer skills and access to the internet to enable access to our data collection system, iii) are willing to complete the DSM-5 training, iv) see 1 or more newly referred patients per month, v) are willing to seek consent from his/her patients, and vi) are willing to schedule the follow-up appointments for participating patients within 4-12 weeks following the initial evaluation.
3. *Study sample:* The study sample will include a representative sample of 1400 psychiatrist from the AMA Masterfile of Physicians and 3,500 volunteer clinicians who meet eligiblity criteria for the field trials (FTs). The representative sample will include 1000 randomly sampled psychiatrists, plus a representative stratified sample of an additional 100 geriatric psychiatrists, 100 addiction psychiatrists, and 200 child psychiatrists. The volunteer sample will include1,000 psychiatrists, 500 licensed psychologists, 500 licensed clinical social workers, 500 licensed counselors, 500 licensed marriage and family therapists, and 500 advanced practice psychiatric-mental health nurses.

Each clinician will:

1) Complete the DSM-5 Training and complete and returning the associated training questionnaire.
2) Enroll **1 new patient (NP)** and **1 existing patient (EP) who is already in his/her care**.

Enrollment of NPs:

After completing the DSM-5 Training Session, which will incorporate the Human Subjects Training, and returning the training questionnaire, a start date for a clinician will be set. The clinician will be asked to enroll the next new patient seen within the next 2 months from the start date. The start date will be randomly determined but will occur within 3 months of completion of the DSM-5 training. The clinician will seek the NP's consent at the time of his/her first clinic visit.

Enrollment of EPs:

After completing the DSM-5Training Session, which will incorporate the Human Subjects Training, and returning the completed training questionnaire, a start date for a clinician will be set. The timing of selection of EPs will be randomly assigned. For example, a clinician might be asked to enroll the fifth EP seen for a routine visit on a specific date **if the EP's next clinically-indicated follow-up visit will occur anytime within a month**. However, another clinician might be asked to enroll the second patient seen for a routine visit on a specific date **if the EP's next clinically-indicated follow-up visit will occur anytime within a month**. The clinician will complete the consent process during the initial routine visit but initiate the baseline study visit at the next clinically-indicated visit. This allows the clinician to inform the patient of the additional time that will be needed for the return visit, in which the clinician will incorporate the DSM-5 diagnostic criteria and cross-cutting and diagnostic-specific measures.

Baseline visit (see Figure 2a for an outline of this visit):

Procedure:

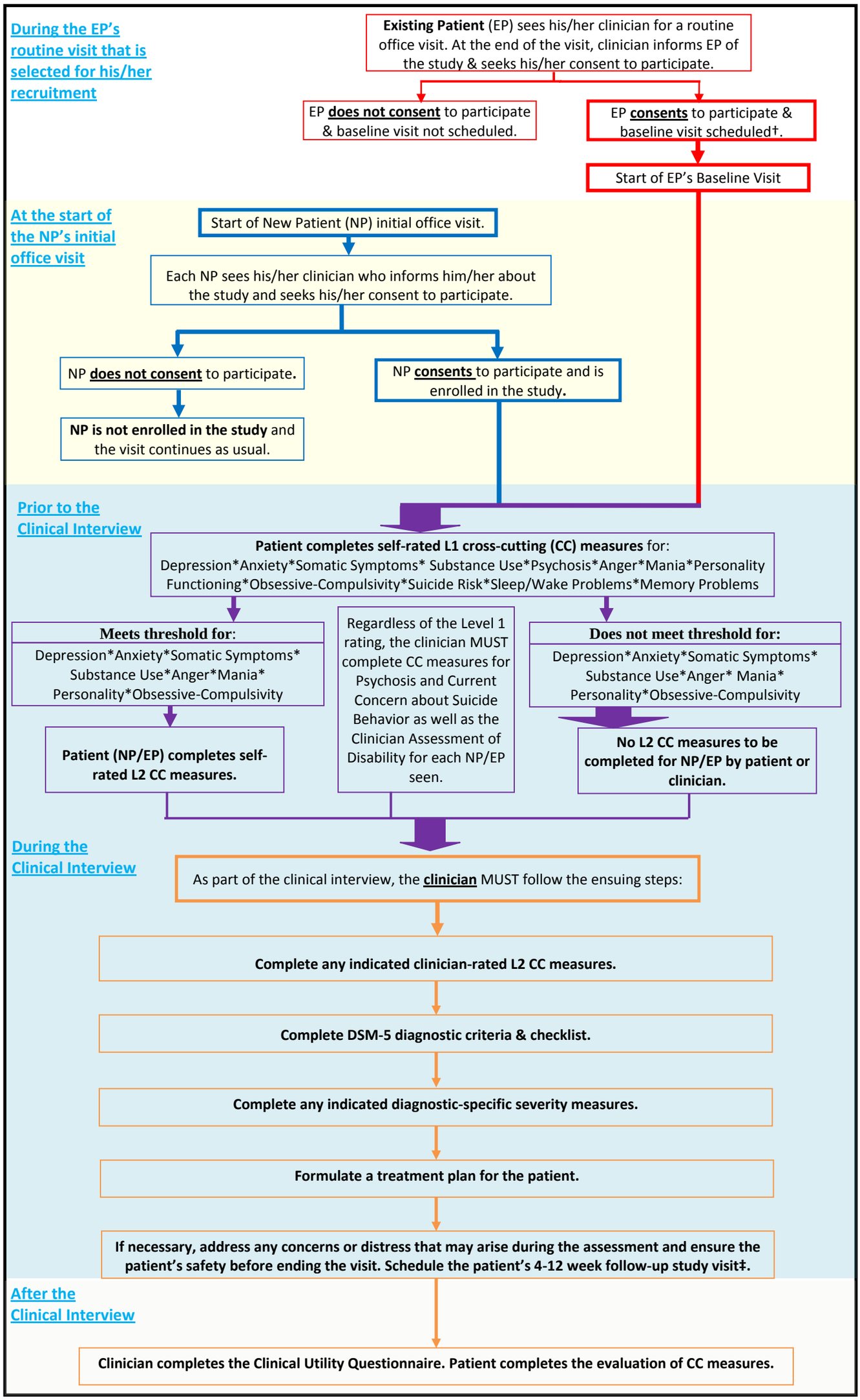
- Patient completes the cross-cutting dimensional measures (Level 1 and any indicated Level 2 Measures).
- Patient sees the clinician for the baseline clinical evaluation – this will include diagnostic formulation and the completion of indicated diagnostic-specific severity measures and use of the results of the patient-completed dimensional measures; make treatment plan.
- Clinician documents whether the disorder/s is/are newly occurring, new episode/recurrent, or ongoing/chronic.
- Clinician completes the Clinical Utility Questionnaire.

Follow-up visit at 4-12 weeks after baseline (see Figure 2b for an outline of this visit):

Procedure:

- Patient completes the cross-cutting dimensional measures (Level 1 and any indicated Level 2 Measures).
- Patient sees the clinician for the 4-12 week clinical evaluation – this will include review of the diagnosis assigned at baseline and the completion of the indicated diagnostic-specific severity measures and use of the results of the patient-completed dimensional measures; make treatment plan.
- Clinician completes the Clinical Utility Questionnaire.

Figure 2: Steps involved at the **Baseline Study Visit** for DSM-5 Field Trials in Routine Clinical Practice settings.



† This visit MUST occur no later than 1 month following recruitment

‡ This 4-12 week follow-up study visit does not preclude the scheduling of any clinically-indicated visit/s in between.

Last updated 03/18/2011

Figure 3: Steps involved at the **4-12 week Study Visit** for DSM-5 Field Trials in Routine Clinical Practice settings.