CTWG Evaluation Plan
Results of Baseline Feasibility Analysis
Rationale for Systematic Evaluation of NCI Clinical Trials System

- Past evaluations based predominantly on opinions of expert panels
- NCI never previously performed a systematic evaluation that integrates qualitative/perceptual and quantitative information about its clinical trials activities
- Establishes a structured framework for continuous monitoring and feedback for mid-course corrections

Initial results of a feasibility analysis for an ongoing evaluation process requiring regular CTAC input
CTWG Overall Evaluation Plan

• Establish structured evaluation system
  – Designed by experienced evaluation specialists
  – Blend of quantitative/qualitative measures
  – Perceptions of clinical trial experts and structured empirical data

• Perform baseline feasibility analysis

• Perform periodic evaluations as CTWG implementation proceeds
Two Categories of Measures: Comparison of Baseline to Future

• **System Outcome Measures**
  – Is the overall output of the NCI clinical trials system improving?

• **System Performance Measures**
  – Are the individual CTWG initiatives having the desired effect on the performance of the NCI clinical trials system?
System Outcome Measures

• Quality of Trials
  – Publications
  – Strength of trial designs

• Impact of Trials
  – Guide new therapeutics or diagnostics development
  – Lead to changes in patient management

• Efficiency of Trial Development and Initiation
  – Time to first patient on study

• Efficiency of Trial Conduct
  – Rate of accrual, cost-effectiveness
Interlocking Data Collection Methods

- Interviews
  - Qualitative: Perception of current system and practices
- Database analysis
  - Quantitative: How long, how fast, how many
- Document review
  - Factual information
- Use multiple data sources to triangulate analysis
Baseline Interviews

• Discussions with 81 individuals in 2007
  – NCI staff (25 interviews across CTEP/IDB, CTEP/CIB, OCTR, DCP, OC)
  – Phase I/II trialists (25 interviews with N01 holders, U01 holders, CG trialists, R01/R21/P50 trialists)
  – Phase III trialists (17 interviews with all nine Cooperative Group PIs and eight CG disease committee chairs)
  – CCOP/CCOP Research Base PIs (9)
  – Industry trialists (5)

• Primarily open-ended questions, some designed to elicit perceptions of specific facts/events
Baseline Database Analysis

• **Databases analyzed**
  – CTEP Clinical Data Update System (CDUS)
  – DCP Enterprise System Knowledgebase (DESK)

• **All trials active 1/1/2000-12/31/2005**
  – Patient registration by institution, by trial
  – Rate of accrual
  – Publication of trials

• **All LOIs/concepts active 1/1/2000-12/31/2005**
  – Time from LOI/concept submission to decision point
  – Time from LOI/concept submission to first patient on study

• **No current database captures all clinical trials performed at Cancer Centers**
Baseline Document Review

- NCI Program Guidelines
- Cancer Treatment Guidelines (e.g., ASCO, ACS, NCCN, US Preventive Services Task Force)
- Academic medical center tenure and promotion guidelines
Baseline Feasibility Analysis for Evaluation: Expert Panel

- Participated in development of measures and interview guides at beginning

- Membership
  - 9 NCI-funded trialists
  - 1 industry trialist
  - 1 patient advocate

- Reviewed key findings at end
Quality of Trials: Publications

• Data Source:
  – CTEP database; Cooperative Group publication lists

• Feasibility:
  – Cooperative Group trials can be linked to publications
  – CTEP database useful for future but not baseline
  – No easy linkage for non-CTEP trials

• Baseline Findings:
  – 50% of closed Cooperative Group Phase II and Phase III trials resulted in publications (4 Groups)

• Recommendation:
  – Include field for reporting publications in clinical trials databases
Impact of Trials: Patient Management

- **Data Source:**
  - Cancer Treatment Guidelines (e.g., ASCO, ACS, NCCN, US Preventive Services Task Force)
  - JCO “Clinical Cancer Advances 2006: Major Research Advances in Cancer Treatment, Prevention, and Screening”

- **Feasibility:**
  - Feasible but time-intensive to link Guidelines to trials
  - Feasible to use JCO Clinical Cancer Advances Series

- **Baseline Findings:**
  - 4 of 9 “major advances” supported by NCI clinical trial
  - 9 of 15 “other notable advances” supported by NCI clinical trial

- **Recommendations:**
  - Use annual JCO article to assess impact
  - Assess including ASCO plenary session presentations
CTWG Coordination Initiatives
Incentives for Collaboration in NCI Guidelines

• Data Source:
  – NCI Award Guidelines (Cancer Center, Cooperative Group, SPORE, P01)

• Feasibility:
  – Guidelines clear concerning whether and in what way collaboration rewarded

• Baseline Findings:
  – Cancer Center: Weak incentives for collaboration across Centers
  – Cooperative Group: Strong incentives for collaboration across Groups
  – SPORE: Strong incentives for collaboration
  – P01: No incentives for collaboration

• Recommendations:
  – Repeat analysis at regular intervals during CTWG implementation
CTWG Prioritization Initiatives
Phase I/II Investigational Drug Trials

• **Data Source:**
  – Phase I/II trialist interviews

• **Feasibility:**
  – Perceptions can be determined by interviews

• **Baseline Findings:**
  – Perceptions concerning CTEP Clinical Development Plans highly variable
  – Perception that the pre-IDSC process was not transparent
  – Mixed perceptions of pre-IDSC trial quality

• **Recommendations:**
  – Focus future interviews on role of IDSC in enhancing transparency, collaboration and quality of Clinical Development Plans and trials
CTWG Prioritization Initiatives
Phase III Cooperative Group Trials

• Data Source:
  – Cooperative Group trialists, CTEP/CIB, OCTR interviews

• Feasibility:
  – Perceptions can be determined by interviews

• Baseline Findings:
  – CTEP prioritization process perceived as opaque by some trialists and transparent by others
  – CIB staff perceived the quality of Phase III trial concepts to be mixed
  – CIB staff perceived little duplication in Phase III trials

• Recommendations:
  – Focus future interviews on role of Scientific Steering Committees in enhancing transparency and quality of trial concepts
CTWG Operational Efficiency Initiatives
Efficiency of Phase III Trial Accrual

• **Data Source:**
  – CTEP database; Phase III trialist interviews

• **Feasibility:**
  – Accrual data by trial and site readily available

• **Baseline Findings:**
  – 150 Phase III trials active in 2000-2005 with 1516 accruing institutions
  – 67% of trials accrued less than 5 patients per site per trial
  – 40% of institutions accrue 1-10 patients, representing 3% of patients
  – 16% of institutions accrue 100+ patients, representing 64% of patients
  – Most sites perceived below economically viable accrual levels

• **Recommendations:**
  – Repeat analysis at regular intervals
CTWG Operational Efficiency Initiatives
Efficiency of Phase III Trial Accrual

Accrual to 150 Cooperative Group Phase III Trials
Active 2000-2005

Percentage of Institutions

<table>
<thead>
<tr>
<th>Number of Patients</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1-5 patients</td>
<td>29%</td>
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<tr>
<td>6-10 patients</td>
<td>12%</td>
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<td>11 to 25 patients</td>
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<td>26 to 50 patients</td>
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<tr>
<td>301 to 500 patients</td>
<td>2%</td>
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<tr>
<td>500+ patients</td>
<td>1%</td>
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</tbody>
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Number of Patients Accrued to Trials, by Institution
Next Steps

• Develop specific plan for future evaluation, refining baseline measures and developing protocols for future measures

• Incorporate additional information in clinical trials databases to strengthen future evaluation efforts

• Prepare initiative-specific timeline for future evaluation

• CTAC Subcommittee will be formed to oversee evaluation process