Frontier Issues: Informed Consent in Childhood Cancer Research

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University of Minnesota
Annual Research Ethics Day
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Disclosures

• I have a Consulting Agreement with Solid-GT to provide advice about research ethics.
Animating Questions:

- “Research is the standard of care for children with cancer”: Can this be the case?
- Do parents understand randomization (Phase III)?
- Why are Phase I trials ethically interesting?
- Do parents appreciate that they have a choice?
- What about the children who are the research participants/subjects?
- Why is informed consent important?
- How can accurate descriptive research drive quality improvement in the domain of informed consent?
PIC: Project on Informed Consent

- Multisite study (N = 140)
- Focus on new diagnosis of acute leukemia
- Inclusion criteria: a Phase III RCT would be offered
- Observed audiotaped consent conferences, interviews with parents, other validated measures
- Quantitative and qualitative data
- 85% consented to RCT for treatment of leukemia
Data Collection: PIC

Clinical Event

Diagnosis of cancer
Informed consent conference for clinical trial
6 months in treatment
Treatment Ends

Consent for observational study
Observed/taped conferences and parent interviews
Telephone Interviews
Focus Groups
Parent advisory group

Research Event
Primary Findings: Parental Understanding of Key Dimensions of Informed Consent (Kodish et al., 2004)

<table>
<thead>
<tr>
<th></th>
<th>Explained by Investigators:</th>
<th>Understood by Parents:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice</td>
<td>89%</td>
<td>67%</td>
</tr>
<tr>
<td>Randomization</td>
<td>83%</td>
<td>49%</td>
</tr>
</tbody>
</table>

- Parents of racial minority status and low SES: less likely to understand choice and randomization
- 34% demonstrated evidence that they did not understand the distinction between study participation vs. treatment outside the RCT
Implications

(Kodish et al., JAMA, 2004; 291:470-5)

• Significant gap between what investigators communicated about the study, and what was understood by participants
• Some participants were more vulnerable to lack of understanding than others
• Gaps may relate to the way information was presented, the content, or both
• Need for interventions to enhance quality of investigator-parent communication to enhance parental understanding of research
Physician-Directed Intervention: Teaching and Measuring Better Informed Consent

(Yap et al., Academic Medicine 2009; 84:1036-42.)

• Multisite intervention (RCT): 2 intervention arms + control
• Interventions were based on PIC study findings and recommendations from parents
• Physicians trained in seminars that included: review of research on informed consent; Audiotapes of process of consent; and, sequential approach
• Seminars co-taught by parents from PIC PAGIC
• Examples of good versus problematic communication
• How to elicit parental questions and participation
• Sequential approach:
  1. What is leukemia?
  2. Current treatment
  3. What is the RCT?
  [Check for understanding at each step]
Results of Intervention Based on Audiotapes of the Consent Conference and Parental Interview (Yap et al., 2009)

In the physician-directed intervention group (N = 59):

- Physician-investigators were more likely than control group (N= 42) to use recommended sequenced approach

- Parents asked more questions

- Parents showed greater understanding of choice (but not randomization) compared with controls
Phase I Informed Consent: Project
Background

Direct Observation of 85 informed consent conferences (ICC) for a pediatric phase I oncology trial + Audiotaped ICCs

Post ICC interviews with parents (N=60), and adolescent/young adult if applicable

Parent Advisory Group on Informed Consent (PAGIC)
Communicating and Understanding the Purpose of Pediatric Phase I Cancer Trials

Participant and ICC Characteristics

- 60 parents completed post-ICC interviews
- Physicians had a mean age of 44 years and had cared for children with cancer for about 14 years
- Most physicians were female (54%) and 15% were minorities
- 93% of ICCs were led by attending physicians and a nurse was present at 40% of ICCs
- Mean ICC length was 45 minutes
- The patient was present at 83 of 85 of the ICCs
- Physicians provided the informed consent document in 59 cases, and a parent signed the document in 56 cases

<table>
<thead>
<tr>
<th>Table 1. Patient and Parent Demographics and Clinical Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic or Clinical Characteristic</strong></td>
</tr>
<tr>
<td>Patients, n = 85</td>
</tr>
<tr>
<td>Age, years</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cancer diagnosis</td>
</tr>
<tr>
<td>Brain and CNS</td>
</tr>
<tr>
<td>Bone and soft tissue (sarcoma)</td>
</tr>
<tr>
<td>Neuroblastoma</td>
</tr>
<tr>
<td>Leukemia</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Days from ICC to patient death*</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Parents, n = 60</td>
</tr>
<tr>
<td>Age, years</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Race/ethnicity</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Index of Social Position†</td>
</tr>
<tr>
<td>1-2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4-5</td>
</tr>
</tbody>
</table>

Abbreviation: ICC, informed consent conference.
*N = 40 at the time of analysis.
†Lower scores are representative of higher socioeconomic status.20
**Parental Understanding: Concepts Measured**

- During interview parents were asked the following to ascertain understanding of drug safety, dose escalation, and dose finding:
  - “Could you tell me, in your own words, what this [trial] consists of?”
  - “What are the scientific goals of this [trial]?”
  - “What sorts of treatment will your child get if you decide to participate in this [trial]?”
  - “If your child enrolled in this [trial], how will the dose of the new medicine your child receives be decided?”

- Responses were coded for 0 (no understanding), 0.5 (partial understanding, or 1 (full understanding)

- The highest score would be a 3 (full understanding of all 3 concepts)

- If a parent scored a 0 for any one concept, the research team member then conducted a global search of the parent’s interview responses for evidence of understanding of that concept.
**Parental Understanding: Individual Scores**

### Table 2. Parental Understanding Scores (N = 60)

<table>
<thead>
<tr>
<th>Concept</th>
<th>No Understanding</th>
<th>Partial Understanding</th>
<th>Substantial Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Parents</td>
<td>%</td>
<td>No. of Parents</td>
</tr>
<tr>
<td>Individual concept</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug safety</td>
<td>32</td>
<td>54</td>
<td>5</td>
</tr>
<tr>
<td>Dose finding</td>
<td>24</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>Dose escalation</td>
<td>44</td>
<td>73</td>
<td>9</td>
</tr>
<tr>
<td>Understanding of scientific purpose, composite</td>
<td>21</td>
<td>35</td>
<td>19</td>
</tr>
</tbody>
</table>

**NOTE.** For the individual concepts, the scores were as follows: no understanding (0.0), partial understanding (0.5), and substantial understanding (1.0). The composite understanding score was computed by summing the three individual concept scores (no understanding, 0.0 to 0.5; partial understanding, 1.0 to 1.5; and substantial understanding, 2.0 to 3.0).
Parental Understanding and Physician Disclosure

**Topics Discussed by Physician (N=85)**

<table>
<thead>
<tr>
<th>Topic</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug safety (dose limiting toxicity)</td>
<td>20 (23%)</td>
</tr>
<tr>
<td>Dose finding (maximum tolerated dose)</td>
<td>44 (52%)</td>
</tr>
<tr>
<td>Dose escalation</td>
<td>45 (53%)</td>
</tr>
<tr>
<td>Dose cohorts</td>
<td>37 (43%)</td>
</tr>
<tr>
<td>Goal of applicable phase I protocol</td>
<td>72 (85%)</td>
</tr>
<tr>
<td>That a patient’s dose would not be increased</td>
<td>7 (8%)</td>
</tr>
</tbody>
</table>

*Fig 1. Communication and understanding of scientific purpose. A comparison of physician explanation with parental composite understanding scores in 60 cases is shown. Explanation and understanding scores range from none (0.0) to complete (3.0). The blue shaded area indicates cases in which physician explanation equaled or exceeded parental understanding. ICC, informed consent conference.*
Factors Associated with Parent Understanding

• Low understanding was associated with Parent racial/ethnic minority status and low SES

• Physician explanation of all 3 concepts was not associated with a high level of understanding

• Physician explanation of dose cohorts was associated with greater understanding

• A clinically significant relationship was found between physician explanation of the goals of the applicable trial and parental understanding of the scientific purpose

• Previous enrollment on a clinical trial, duration of ICC, presence of a nurse during ICC, study site, time elapsed between ICC and interview, and number of questions asked in the ICC were not found to be associated with understanding

| Table 3. Factors Associated With Understanding of the Scientific Purpose in Parents |
|-----------------|------------------|----------------|----|-----|
| Factor          | No. of Parents (N = 60) | Partial/Substantial Understanding of the Scientific Purpose (%) | $\chi^2$ | $P^*$ | ES (%) |
| Minority status |                               |                               |    |      |       |
| No             | 51                             | 71                             | 4.40 | .05  | 38     |
| Yes            | 9                              | 33                             |     |      |       |
| ISP score      |                               |                               |    |      |       |
| 1-2            | 19                             | 84                             | 16.91 | .002 | 51     |
| 3              | 20                             | 80                             |     |      |       |
| 4-5            | 21                             | 33                             |     |      |       |
| Physician explanation of cohorts |                   |                               |    |      |       |
| No             | 34                             | 18‡                            | 8.53 | .001† | 36     |
| Yes            | 26                             | 54‡                            |     |      |       |
| Physician explanation of trial aim |                   |                               |    |      |       |
| No             | 10                             | 10‡                            | 2.79 | .09†  | 28     |
| Yes            | 50                             | 38‡                            |     |      |       |

Abbreviations: ES, effect size; ISP, Index of Social Position.
*All probabilities are based on exact statistics.
†One-tailed probability test. All others are two-tailed.
‡Only substantial understanding was analyzed.
Hope & Persuasion by Physicians During Informed Consent

Victoria A. Miller, PhD¹, Melissa Cousino, MA², Angela C. Leek, BA³, & Eric Kodish, MD⁴


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²Department of Psychological Sciences, Case Western Reserve University

³Department of Bioethics, Cleveland Clinic, Cleveland, OH

⁴Center for Ethics, Humanities and Spiritual Care, Cleveland Clinic, Cleveland, OH
Data Collection & Methods

- Audiotaped ICCs
  - Developed coding scheme
  - 17 transcripts double-coded for reliability
  - Intraclass-Correlations ranged from 0.70 to 0.93

- Parent Interview
  - Likelihood the child would get medical benefit
  - Strength of physician’s recommendation for Phase I study
  - Perception of control as a result of information provided about the trial
  - Perceived pressure to participate in trial

- Case-Specific Questionnaire (from clinicians)
  - Likelihood child would get medical benefit
  - Likelihood child will get psychological benefit
  - Strength of recommendation for phase I trial
## Coding Process

<table>
<thead>
<tr>
<th>Main Code</th>
<th>Sub-Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope</td>
<td>Positive outcomes&lt;br&gt;Staying positive&lt;br&gt;Keep fighting&lt;br&gt;Goals&lt;br&gt;Options&lt;br&gt;Reminder of past successes&lt;br&gt;Child doing well</td>
</tr>
<tr>
<td>Realism</td>
<td></td>
</tr>
<tr>
<td>Persuasion</td>
<td>Words to describe trial; No other option; urgency; altruism; others&lt;br&gt;responding/tolerating study drug; child&lt;br&gt;responded to similar drug in the past; implied lack of choice; minimize logistics or side effects; physician recommendation</td>
</tr>
<tr>
<td>Alleviate Pressure</td>
<td></td>
</tr>
</tbody>
</table>
## Physician Demographics

<table>
<thead>
<tr>
<th>Characteristic (N=30)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, years</strong></td>
<td>Mean SD Range</td>
<td>43.60 6.65 29-61</td>
</tr>
<tr>
<td><strong>Sex (male)</strong></td>
<td>Male Female</td>
<td>14 (47%) 16 (53%)</td>
</tr>
<tr>
<td><strong>Time in practice, years</strong></td>
<td>Mean SD Range</td>
<td>13.71 7.84 1-32</td>
</tr>
<tr>
<td><strong>Clinical Role</strong></td>
<td>Attending Fellow</td>
<td>27 (90%) 3 (10%)</td>
</tr>
</tbody>
</table>
### Patient & ICC Demographics

<table>
<thead>
<tr>
<th>Characteristic (n=85)</th>
<th>1-6</th>
<th>7-13</th>
<th>14-17</th>
<th>18-21</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Age, years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 (22%)</td>
<td>34 (40%)</td>
<td>17 (20%)</td>
<td>15 (18%)</td>
<td></td>
</tr>
<tr>
<td>Patient Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54 (64%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>31 (36%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brain/CNS</td>
<td>28 (33%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bone or Soft Tissue</td>
<td>26 (31%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroblastoma</td>
<td>17 (20%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leukemia</td>
<td>7 (8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7 (8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of ICC, minutes</td>
<td>Mean</td>
<td>44.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>19.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>15-128</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Results

• In 85% of ICCs, physicians failed to mention that the disease was incurable
• Physicians failed to mention “no treatment” and/or “palliative care” as option in 68% of ICCs
• When “No treatment” and/or “palliative care” were mentioned, physician ratings of likelihood of psychological benefit were lower, and physician and parent ratings of physician recommendation for phase I trial were lower
• Follow up data available on 68 children, all of whom died at mean of 291 days post ICC
  (range 17-1,379 days)
Quantitative Results

• Hope to Realism ratio: 3.15 (SD, 3.88; range 0-28)
• Ratio of Persuasion to Alleviate Pressure: 0.88 (SD, 1.29; range 0-8)
• Realism was positively associated with Alleviate Pressure
Hope: Positive Outcome

• “The real important thing, I think, uh for uh, fathers and mothers is to remember that we’re exposing her to these risks because we expect it to help. I’m cautiously optimistic that this is going to help her and I’m very hopeful that in six weeks those scans are going to be better. Is it possible that this could clear her scans and clear her bone marrow? Yeah, it’s possible.”-physician
Hope

• Goals
  • “We want, our goal is to have him a 30-, 80-year old man.”

• Reminder of Past Successes
  • “It’s hard because we don’t know and we have very limited experience but my hope is that his experience on this will be very similar to his experience on the antibody study.”

• Child Doing Well
  • “She really has done so much better than any other child I have seen with a brainstem glioma, I have got to say. I have never seen someone who had so few symptoms.”
Realism

“I think that um, right now you have a disease that we cannot cure and we have tried. We have given it a good fight and there is nothing that you have done wrong to make that happen, obviously, you certainly didn’t make yourself get it. No one made you get it. Um, we have given it a good go with as many chemotherapies as we have, and like I said, if I had a better drug to give you right now, I would obviously would give it to you.”
Persuasion

• Minimize Logistics or Side Effects
  • “It’s in your mind, ‘cause you think that there’s a pill and it’s hard to swallow but you really, in real life you can actually swallow much bigger pieces of food than a pill.”

• Physician Recommendation
  • “...because the risks of this medicine, in our opinion, are relatively low and the benefit, if this is a good drug for her, could be extremely high, we recommend very strongly and I’d ask you to consider very strongly.”

• Urgency
  • “After this week, if we lose this spot, then it may be another month or two before we can even reconsider.”
Alleviate Pressure

• “I think that’s something that’s really important is saying... sometimes it feels like when you sign this, it’s like signing a contract and I’m the study doctor and I’m gonna make you do this. That’s not the way it is, you can always back out. And if you back out, then we just say, okay, well, let’s sit down and talk about your options are now.”
Conclusions

• Hopes and goals other than cure or longer life were infrequently mentioned.

• Hospice, palliative care and/or no treatment were infrequently presented as alternatives.

• Physicians have an important role to play in helping patients and families develop alternative goals when no curative options remain.

• None of this implies in any way, shape or form that Phase I trials are unethical. Quite the contrary.....
Practical Communication Guidance to Improve Phase I Informed Consent Conversations and Decision-Making in Pediatric Oncology

Liza-Marie Johnson, MD MPH, MSB¹, Angela C. Leek, BA², Dennis Drotar, PhD³, Robert B. Noll, PhD⁴, Susan R. Rheingold, MD⁵, Eric D. Kodish, MD⁶, Justin N. Baker, MD, FAAP, FAAHPM¹,⁷

Cancer 2015; 121:2439-48

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⁷Department of Oncology, St. Jude Children’s Research Hospital, Memphis, TN
Parent Advisory Group on Informed Consent (PAGIC)

• Sample Selection
  • 15 eligible parents from total of 57 (10 point scale)
    • Parent completed the study interviews
    • Parent’s child had passed away at least 6 months prior to PAGIC
    • Score >6 (selflessness, articulateness, insight, engagement)
  • 8 parents agreed to participate

• Study Personnel
  • Principal Investigator, 3 study-site co-investigators, pediatric behavioral scientist and co-investigator, primary research assistant
Outline of PAGIC

• Advisory group model that team had implemented successfully before
• Summary of study data sent to participants before meeting took place
• Materials created by research personnel
• One and a half day meeting
  • Began with a Memorial led by Rev. Dr. Amy Greene
  • Discussion focused on parent’s interpretation of data
    • Explored their perception of it’s accuracy
    • Shifted to topics parents thought were important while covering those that researchers had prospectively identified
1. Anticipatory Guidance
2. Conversations at Relapse/Poor Prognosis
3. Introduction of Options
4. Phase I ICC
5. Options Towards End-of-Life
<table>
<thead>
<tr>
<th>Time Point</th>
<th>Overall Theme</th>
<th>Specific Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anticipatory Guidance</td>
<td>Disclosure of diagnosis Clinical trial education</td>
</tr>
<tr>
<td>2</td>
<td>Conversations at Relapse/Poor Prognosis</td>
<td>Discussion of prognosis Researching treatment Discussing fears Consult supportive services</td>
</tr>
<tr>
<td>3</td>
<td>Introduction of Options</td>
<td>Maintaining hope Trail availability/time to weight options Continuity of care</td>
</tr>
<tr>
<td>4</td>
<td>Phase I ICC</td>
<td>Trial overview Relationships: “Model” clinician behavior Quality ICCs – phase I education Make Recommendations Altruism</td>
</tr>
<tr>
<td>5</td>
<td>Options Towards End-of-Life</td>
<td>Changing goals End of life planning</td>
</tr>
<tr>
<td>All time points</td>
<td></td>
<td>Building trust &amp; relationships Fostering open communication Shared Decision Making</td>
</tr>
</tbody>
</table>
1. Anticipatory Guidance

• Disclosure of Diagnosis
  • “Just so they [physicians] feel more comfortable talking about it and know how to speak about it. How the same thing can be said in different ways.”

• Clinical Trial Education
  • “Informed consent documents are currently often 30 pages long. There is so much “required language” that points unique to that person are lost in the repetitive language. Consents should be simplified to improve patient understanding.”
2. Conversations at Relapse/Poor Prognosis

• Researching Treatments
  • “I knew all about this trial, I knew the details, everything on this trial before I walked into that consent. I had a stack every week of at least 5-10 different trials going on that I plowed through with my doctor and we would go through them and my daughter was involved in it. Does it make you lose your hair? Nope! Don’t want it. I mean she was right there and yes, she had different focuses than I did but my point was is I went into this trial knowing every detail about it before I went into the consent.”

• Supportive Services
  • “Adding session that includes other disciplines such as SW, psychology, or RN that does not include MD”
3. Introduction of Options

• Continuity of Care
  • “I felt that level of security with my son’s physician as where we had to trust they were sending us to a place that I could then trust this new person.”

• Trial Availability/Time to Weigh Options
  • “Sometimes the deadlines for reservations on Phase I studies force the consent process to occur at a faster rate, the potential to extend these reservations could be helpful for the particular patients, although may delay the conduct of the study.”
4. Phase I ICC

• Make Recommendation
  • “They’re relying on you who have lived this every single day of your life, you will understand the consequences. We don’t, we’re freshman in high school, we don’t know any of this stuff. We’re relying in you guys to tell us which direction we need to go to, not necessarily with the decisions but how to handle it.”

• Quality ICCs
  • “A staged consent process works better – you can then review disease progression in one meeting, perhaps have a broader decision making meeting to discuss quality of life issues, family resources, stressors in context of child’s prognosis and review options for moving forward including concept of Phase I agents.”
5. Options Towards End-of-Life

• End-of-Life Planning
  • “(Patient) desperately wanted to live and when he knew he was not going to make it, he wanted to help the next kid and that is from his mouth. I mean he – and at the very end of his life we had signed hospice, he wanted to make sure that his brain be donated to study. I mean he just wanted to help the next kid.”

• Changing Goals
  • “I think we need to be clearer with patients about the unlikeliness of benefit while still maintaining hope – hope of cure (though unlikely), hope of improvement of symptoms, hope of benefiting others, hope of peaceful death.”
All Time Points

• Shared Decision Making
  • “So he [patient] you know, he wanted to be engaged and when we got to (hospital) those people there were surprised just how much, and he was 12 at the time, just how much he knew about what was going on. So when it came to the consent part of it, you bet he wanted to be a part of it.”

• Building trust & Relationships
  • “Spend as much time as the family needs to understand process. Patience, time, clear language delivered in sensitive manner.”
Phase I Cover Sheet

(Hospital Name)  
Phase I Clinical Oncology Trial: A Brief Overview

Purpose of Phase I Trials

The purpose of a Phase I trial is to identify and develop new drugs to treat childhood cancer. In a Phase I trial, researchers are trying to evaluate safety. This includes determining a safe dose range (MTD) and identifying side effects. There is a chance of toxic side effects. It is unlikely that the treatment in a Phase I study will cure your child. Possible benefits could include symptom reduction and the opportunity to help others in the future. The Phase I trial is voluntary and you can decide not to participate. You can talk to your doctors to stop being in the study at any time.

Some Definitions

<table>
<thead>
<tr>
<th>Maximum Tolerated Dose (MTD)</th>
<th>The highest dose of a drug that can be given safely without severe side effects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose Limiting Toxicity (DLT)</td>
<td>Serious side effects caused by a dose of the Phase I drug.</td>
</tr>
<tr>
<td>Cohort</td>
<td>Small groups of 3-5 children enrolled on the Phase I trial at each new dose level.</td>
</tr>
<tr>
<td>Dose Escalation</td>
<td>Each cohort (patient group) receives a higher dose than the previous cohort. In the case of a DLT, they will receive a lower dose. Dosages increase until there are unacceptable side effects.</td>
</tr>
<tr>
<td>Dose Finding</td>
<td>Phase I trials are designed to find the highest safe dose of a drug to use in Phase II trials. In Phase II trials, more people are given the new drug (at a set dose) to see if it works against cancer and to further test safety.</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>Medical care focused on relief from symptoms, pain, and stress of a serious illness to improve the quality of a patient’s and family’s life. Can be provided along with treatment at any stage of an illness.</td>
</tr>
</tbody>
</table>

Available Support Services and Contact

- Child Life
- Psychology
- Palliative Care
- Spiritual Care

Additional Contact Information

- Your Physician: [Name]
- Clinical Research Associate (CRA): [Name]
- Institutional Review Board: [Name]
- National Cancer Institute (NCI): 1-800-4-CANCER (1-800-422-6237)  
  NCI Website: [http://cancer.gov/](http://cancer.gov/)  
  Clinical Trials: [http://cancer.gov/clinicaltrials/](http://cancer.gov/clinicaltrials/)
Conclusions

• Decision to enroll on a phase I trial is an incredibly difficult decision for all parties, and families want their physician to recognize this and work to tailor the information to their needs and situation

• ICC process requires high focused engagement by the physician, and is more dynamic than a straightforward, neutral approach

• This model proposes clinicians integrate these communication practices at key time points along the illness trajectory
Prevalent Model of Involving Participants in Research

Investigators:
• Plan and implement the study
• Inform the participants of findings

Participants:
• Complete procedures
• Receive results
Model of Involving Research Participants is Well Suited for Ethics Research

- Investigators
- Participants

Planning/Implementing Study

- Reviewing findings and identifying implications
- Participating in research implementation and design going forward
Guiding Values and Commitments

• Rigor

• Curiosity

• Generosity
Study Personnel

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