NTP
National Toxicology Program

Draft NTP Monograph on Developmental Effects and Pregnancy Outcomes Associated with Cancer Chemotherapy Use during Pregnancy

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Research Needs and Communications Strategies

Cancer Chemotherapy Use during Pregnancy

Communication Strategies

- NTP would like to effectively disseminate the information presented in the monograph
  - What should be our target audience? How can we make these researchers/clinicians and patients aware of our monograph?NTP would like to make publically available the database of pregnancy outcomes created for the draft monograph
- NTP would like to make available a database of the pregnancy outcomes collected for this monograph
  - Is there interest in such a database?
  - What data and features would be most useful?

Research Needs

- To improve the understanding of effects of gestational exposure to cancer chemotherapy, the NTP suggests:
  - Broader participation in registries of cancer during pregnancy
  - Prospective studies of the pregnancy outcomes of women administered chemotherapy for cancer
    - Including evaluations for late onset adverse health outcomes in gestationally-exposed offspring
  - Evaluating the pregnancy outcomes, and long-term health effects of the offspring, of other populations exposed to cancer chemotherapy during pregnancy
    - Medical personnel working with cancer chemotherapy
    - Patients receiving chemotherapy for non-cancerous health conditions
- Development and improvement of consensus guidelines for diagnosis, staging, and treatment of pregnant women

Other questions regarding research needs

1. Please comment on potential areas for improvements in current procedures used to detect possible long-term effects of cardiotoxicity in children gestationally exposed to cancer chemotherapy.
2. Please comment on strategies that could be used to differentiate between adverse effects of *in utero* exposure to cancer chemotherapy and the adverse effects of preterm birth.
3. Please identify research approaches that could be used to assess potential effects of cancer chemotherapy use during pregnancy on long-term development of children, including the potential for increased cancer risk and effects on organ systems (e.g., neurological, hematological, immunological, and/or reproductive systems).
4. In general, the NTP did not identify any obvious patterns of developmental toxicity or pregnancy outcomes based on specific classes of agents (e.g., anthracycline antibiotics) or specific mechanism of action. Please comment on whether there are health effects that suggest a pattern based on specific class of agents or specific mechanism of action other than those that have been identified in the draft monograph.
5. Please suggest strategies (e.g., better use of existing registries, publication of registries) that might improve availability of data for research on effects of cancer chemotherapy use during pregnancy. How might these strategies be effectively implemented or communicated to targeted groups?

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