Discussing Safe Sexual Practices During Cancer Treatment

Joanne Frankel Kelvin, MSN, RN, AOCN®, Rebecca Steed, MSN, WHNP-BC, and Joy Jarrett, BSN, RN, OCN®

Physical intimacy can contribute significantly to a person’s well-being, but oncology clinicians rarely discuss sexuality with their patients. Lack of knowledge and personal discomfort are widely acknowledged barriers. This article addresses these barriers by outlining steps patients can take during treatment to ensure safe sexual activity. Most patients can be sexually active during treatment, but they need to use safe sexual practices. Patients need to prevent pregnancy, protect themselves from infection, and, if concerned, avoid partner exposure to chemotherapy in semen or vaginal fluids. This article outlines issues to consider when educating patients about sexual activity during cancer treatment and describes strategies for oncology nurses to feel more comfortable initiating these discussions with patients.

Suleika Jaouad was diagnosed with leukemia at age 22 and has been writing about her experiences as a young adult with cancer in a New York Times blog. In her 2013 Valentine’s Day entry, she said, “No one has ever broached the topic of sex and cancer during my diagnosis and treatment. Not doctors, not nurses. On the rare occasions I initiated the conversation myself, talking about sex and cancer felt like a shameful secret” (Jaouad, 2013, p. 1).

Unfortunately, Jaouad’s experience is not unusual for patients who are concerned about sexual health during cancer treatment. Barriers that prevent nurses from discussing sexual health with patients include lack of knowledge, personal discomfort, inadequate time, concern about invading patients’ privacy, and religious, cultural, or ethical beliefs about sexuality (Kotronoulas, Papadopoloulou, & Patiraki, 2009; Park, Norris, & Bober, 2009). This article will address some of the barriers by providing information and strategies for oncology nurses to more effectively educate patients about sexual activity during cancer treatment. The focus will be on safety, particularly preventing pregnancy, protecting patients from infection, and avoiding partner exposure to chemotherapy in semen or vaginal fluids.

Contraception to Prevent Pregnancy

Exposure to chemotherapeutic agents or radiation can cause mutagenic changes in gametes and teratogenic effects in a developing fetus (Klein & Okuyama, 2012). Because of this, female patients of childbearing age and the female partners of male patients should avoid pregnancy during treatment. Women of childbearing age have many hormonal and nonhormonal options for safe and effective contraception. Contraceptive methods are categorized for safety based on risk when used by women with specific medical conditions (American College of Obstetricians and Gynecologists [ACOG], 2011; Workowski & Berman, 2010). Only options that pose minimal risk to patients based on their cancer diagnosis and medical history should be considered. Contraceptive methods are rated for efficacy based on the percentage of women who have an unintended pregnancy during the first year of use, differentiating between typical use and perfect use (Trussell, 2011) (see Table 1). Only options with high efficacy should be suggested, and education on correct usage must be provided to ensure effectiveness. A variety of options should be offered to allow for patient preferences and lifestyle considerations. Many hormonal and
Combined oral contraceptives, or birth control pills, prevent pregnancy primarily by inhibiting ovulation, but also by increasing cervical mucus viscosity and causing endometrial atrophy (Laurence & Rousset-Jablonski, 2012; Speroff & Darney, 2010). Progestin-only formulations are delivered orally or by implant, injection, or intrauterine device (IUD). They all prevent pregnancy by thickening cervical mucus to become impenetrable to sperm, altering the endometrial lining to prevent embryo implantation, and impairing tubal transport; some methods also inhibit ovulation (Laurence & Rousset-Jablonski, 2012; Speroff & Darney, 2010). Progestin-only pills, often called mini-pills, must be taken at the same time each day to remain effective. Implantable devices (e.g., Implanon®, Nexplanon®) inserted into subdermal tissue of the upper arm can prevent pregnancy for three years or may be removed earlier if desired. Injectable progestin (Depo-Provera®), given intramuscularly or subcutaneously, must be administered every three months. Intrauterine progestin is delivered via the levonorgestrel (LNg) IUD, which prevents pregnancy by thickening cervical mucus to become impenetrable to sperm, creating an endometrial environment that is spermicidal to any sperm that enter the uterus, and causing endometrial atrophy and thus preventing embryo implantation (Bayer, 2013, 2014; Speroff & Darney, 2010). Two LNg IUDs are currently available in the United States, and they can prevent pregnancy for three years (Skyla®) or five years (Mirena®), but both may be removed earlier if desired.

Not all women can safely use hormonal contraception. Women with a history of hormone-sensitive cancer, such as breast or uterine, should avoid hormonal contraception. Absolute contra-

<table>
<thead>
<tr>
<th>Contraceptive Method</th>
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<td>Estrogen and progestin pill</td>
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<td>Progestin-only pill</td>
<td>0.3</td>
</tr>
<tr>
<td>Implanon®</td>
<td>0.05</td>
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<tr>
<td>Depo-Provera®</td>
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<tr>
<td>LNg IUD</td>
<td>0.2</td>
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<tr>
<td>Copper IUD</td>
<td>0.6</td>
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<tr>
<td>Male condom</td>
<td>2</td>
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<tr>
<td>Diaphragm</td>
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IUD—intrauterine device; LNg—levonorgestrel

**Note.** Based on information from Trussell, 2011.

Nonhormonal options are discussed in the current article and are safe and effective for many patients with cancer. Hormonal options for contraception include combined estrogen and progestin oral contraceptive pills and a variety of progestin-only formulations. These are generally prescribed by the patient’s gynecologist; however, input from the oncology team may be requested.

In addition to hormone-related contraindications to the use of progestin-releasing LNg IUDs, contraindications exist for using any type of IUD. Previously, concerns were raised about an increased risk of infection and tubal infertility in IUD users; however, contemporary studies have not validated these concerns. The only risk of infection associated with IUDs comes at the time of insertion and for 20 days postinsertion. Because of this, women with active pelvic infections should not have an IUD inserted until the infection is treated and resolved (ACOG, 2011; Speroff & Darney, 2010).

Patients should continue to use contraception after completing treatment. No practice guidelines exist defining the optimal time to wait before attempting pregnancy; this will vary based on disease, treatment, and individual patient factors. One consideration is the potential effect of treatment on the health of offspring. To allow for potentially damaged gametes to be cleared or repaired before attempting conception, at least 6–12 months is recommended (Choy & Brannigan, 2013; Lawrenz et al., 2012). In addition, female patients are generally advised not to become pregnant during the time at which they are at the highest risk for relapse or recurrence. Waiting two years, or three years for patients with more aggressive disease, is commonly recommended (Lawrenz et al., 2012). Patients who have undergone surgery with curative intent and who do not require any adjuvant therapy because of a low risk for recurrence may not be restricted from attempting pregnancy as long (e.g., early-stage thyroid or colon cancers).

Two estrogen-containing hormonal contraceptives, Ortho Evra® transdermal patch and NuvaRing® vaginal ring, are associated with higher rates of VTE than other options and, therefore, may not be appropriate for patients with cancer (Lidegaard, Nielsen, Skovlund, & Lokkegaard, 2012).

Nonhormonal options for effective contraception include the male condom, diaphragm, and copper IUD, as well as tubal ligation. Male condoms, placed over the penis, prevent sperm from entering the uterus. Latex condoms are preferred because they are less likely to break; however, polyurethane can be used by patients who are allergic to latex (Laurence & Rousset-Jablonski, 2012; Speroff & Darney, 2010). A diaphragm is a flexible, cup-shaped device fit by a gynecologist to cover the cervix, preventing sperm from entering the uterus. Patients should insert the diaphragm one to six hours before sexual activity and leave in place for six hours after intercourse, but for no more than 24 hours total (Laurence & Rousset-Jablonski, 2012; Speroff & Darney, 2010). The copper IUD (ParaGard®) creates a uterine environment that prevents fertilization (Speroff & Darney, 2010; Teva Pharmaceuticals, 2012). It can prevent pregnancy for 10 years or may be removed earlier if desired. Tubal ligation is a permanent sterilization procedure that occludes or severs the fallopian tubes. This is only appropriate for women who are certain they are finished with childbearing.

**TABLE 1. Efficacy of Selected Contraceptive Methods Based on Percentage of Women Experiencing an Unintended Pregnancy During the First Year of Use**

- **Contraceptive Method**
  - Estrogen and progestin pill
  - Progestin-only pill
  - Implanon®
  - Depo-Provera®
  - LNg IUD
  - Copper IUD
  - Male condom
  - Diaphragm

- **Percent of Unintended Pregnancies With Perfect Use**
  - 0.3
  - 0.3
  - 0.05
  - 0.2
  - 0.2
  - 0.6
  - 2
  - 6

- **IUD**—intrauterine device; **LNg**—levonorgestrel

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**Note.** Based on information from Trussell, 2011.

- **Male condom**
  - Safety and effectiveness for many patients with cancer. Hormonal options for contraception include combined estrogen and progestin oral contraceptive pills and a variety of progestin-only formulations. These are generally prescribed by the patient’s gynecologist; however, input from the oncology team may be requested.

- **Diaphragm**
  - Effects exist for using any type of IUD. Previously, concerns were raised about an increased risk of infection and tubal infertility in IUD users; however, contemporary studies have not validated these concerns. The only risk of infection associated with IUDs comes at the time of insertion and for 20 days postinsertion. Because of this, women with active pelvic infections should not have an IUD inserted until the infection is treated and resolved (ACOG, 2011; Speroff & Darney, 2010).

- **Patients**
  - Consideration is the potential effect of treatment on the health of offspring. To allow for potentially damaged gametes to be cleared or repaired before attempting conception, at least 6–12 months is recommended (Choy & Brannigan, 2013; Lawrenz et al., 2012). In addition, female patients are generally advised not to become pregnant during the time at which they are at the highest risk for relapse or recurrence. Waiting two years, or three years for patients with more aggressive disease, is commonly recommended (Lawrenz et al., 2012). Patients who have undergone surgery with curative intent and who do not require any adjuvant therapy because of a low risk for recurrence may not be restricted from attempting pregnancy as long (e.g., early-stage thyroid or colon cancers).

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Protecting Patients From Sex-Related Infection During Cancer Treatment

Patients with cancer may be immunocompromised or develop neutropenia while receiving chemotherapy. However, the degree of compromise and the extent and duration of neutropenia vary widely based on the disease and treatment. This raises a challenge for clinicians of how to balance safety without placing unnecessary constraints on patients that may unintentionally inhibit them from engaging in sexual activity during treatment.

Oncology Nursing Society guidelines recommend that all patients use condoms to prevent infection, and that they avoid intercourse when counts are low (Polovich, Olsen, & LeFebvre, 2014). Implementing these guidelines can be challenging because no evidence exists that supports the idea that patients with cancer are more likely to develop infections from sexual activity than other men and women, and patients may resist the use of condoms if they are in a monogamous relationship. In addition, ambulatory patients do not have daily blood count monitoring to know when their counts are too low to engage in sex, and no research-based evidence or clinical consensus exists that defines the absolute neutrophil value below which patients may be at an increased risk of infection from sexual activity. To overcome these challenges at the authors’ institution, specific precautions have been outlined for defined groups of at-risk patients. It was agreed that, for other patients, nurses and physicians would collaborate to individualize precautions based the patient’s disease, treatment, and lifestyle.

Patients who undergo hematopoietic stem cell transplantation (HSCT) experience a prolonged period of immunodeficiency and are widely acknowledged to be at risk for infection from sexual activity (Yokoe et al., 2009). Guidelines outlining safe living practices to prevent infection after HSCT include specific precautions related to sexual activity. Patients should use condoms during all sexual contact to reduce risk of exposure to sexually transmitted infections, use a barrier device during any contact of patient’s mucous membranes with partner’s saliva, semen, or vaginal secretions, and avoid any sexual activity that could result in oral exposure to feces (Yokoe et al., 2009). Patients expected to have prolonged low neutrophil counts, even if they are not undergoing HSCT, may be given similarly restrictive instructions.

Patients receiving pelvic radiation and experiencing vaginal mucous membrane reactions such as inflammation, ulceration, and bleeding (Mitchell, 1997) are also at risk of infection with sexual activity. They should use condoms during intercourse, use a water-based lubricant, and abstain from vaginal penetration if it causes bleeding or pain until the tissues heal.

All patients with multiple sex partners, regardless of their diagnosis or treatment, are at increased risk for sexually transmitted infections. They should decrease the number of sexual partners and use condoms with all sexual encounters (Workowski & Berman, 2010).

To be effective as a barrier in preventing pregnancy and infection, condoms must be used with each penetrative sexual encounter and must be applied and removed correctly. The female condom is another type of barrier that effectively prevents infections; however, it does not provide effective contraception (Laurence & Rousset-Jablonski, 2012).

Avoiding Partner Exposure to Chemotherapy in Body Fluids

A number of studies have demonstrated that chemotherapy drugs can be found in semen and vaginal secretions after administration (Chen et al., 2010; Debruyne, 1997; Taylor & Pereira, 2001; Van Dyke, Connor, Wyborny, Hintz, & Keeney, 1982; Wildfeuer, Laufen, Schmalrech, Yeates, & Zimmermann, 1996). The amount of the drug and how long it remains in body fluids will depend on a variety of drug-specific properties (e.g., drug half-life, route of elimination) and host-specific biologic mechanisms (e.g., renal or hepatic function) (Taylor & Pereira, 2001). However, no data exist whether exposure of the drug in body fluids to partners poses a risk or how much exposure could cause mutagenic effects. Research on healthcare providers has demonstrated the potential for hazardous drugs to be absorbed through the skin (American Society of Health-System Pharmacists, 2006; National Institute for Occupational Safety and Health, 2004; Occupational Safety and Health Administration, 1999), but no data exist on the risk of absorption through skin or mucous membranes of exposed sexual partners.

Despite the lack of evidence demonstrating risk, some patients and their partners are concerned about the exposure. Male and female condoms can provide a barrier preventing exposure during vaginal, oral, and anal sex. Another type of barrier preventing exposure is the dental dam, a thin sheet of latex, which can be placed over the vulva and anus when a female patient is receiving oral sex. Without data on how long chemotherapy drugs may be present in body fluids, it is unclear

PLISSIT

- **Give permission** to discuss the topic.
- **Provide limited information.**
- **Provide specific suggestions.**
- **Refer for intensive therapy.**

**5 A’s**

- **Ask:** Bring the topic up.
- **Advise:** Normalize symptoms and acknowledge the problems.
- **Assess:** Ask about sexual functioning, and use standardized assessments if needed.
- **Assist:** Provide information and resources, and refer as needed.
- **Arrange:** Provide follow-up to check how the patient is doing.

**BEETTER**

- **Bring up the topic.**
- **Explain** that sexuality is part of quality of life and that patients can talk about any concerns they have.
- **Tell** the patients about resources.
- **Time** the discussion to the patients’ preferences.
- **Educate** patients about side effects that may affect sexuality.
- **Record** assessments and interventions in the medical record.

FIGURE 1. Discussion Models to Enhance Sexual Health Communication

Note. Based on information from Krebs, 2008; Park et al., 2009.
how long concerned patients and partners should use barriers. A reasonable suggestion is to use them each day of treatment and for one week afterward. However, if a condom is the only contraceptive being used or if the patient is at risk for infection, it should be used with all sexual encounters.

**Strategies for Discussing Sexual Activity With Patients**

Healthcare providers commonly feel uncomfortable when first speaking with patients about sex. One way to overcome this barrier is to be clear about the content you need to discuss related to safe sexual activity during cancer treatment. Although a broad consensus exists on the need for contraception to prevent pregnancy during treatment, no rigorous evidence exists on the risks of sex-related infection in patients with cancer or risks of exposure to drugs in body fluids for partners. Specific recommendations should be established collaboratively with physicians, and the recommendations will vary based on the patient population. When determining which contraceptive and barrier options will be most appropriate, consider (a) a patient’s age, gender, and childbearing potential; (b) whether patients are treated for hormone-sensitive tumors (e.g., breast, uterine); (c) whether patients are at risk for prolonged low blood counts; and (d) if they are at particularly high risk for VTE.

**Structure and Principles of Communication**

Having a structure for the conversation is another strategy to make it more comfortable for the patient and nurse. Figure 1 outlines several models to help clinicians communicate about sexual health more effectively with patients. Although the models address all aspects of sexual health, they may be helpful to develop personal approaches to discussing safety issues. Nurses should keep a number of principles in mind when communicating with patients about sexual activity.

- **Optimize privacy for the patient**: Ensuring privacy is not always easy to do, particularly in a busy hospital or clinic setting. Ask visitors to wait outside unless the patient states he or she wants them to remain in the room for the conversation about sexual health.
- **Be clear**: Use simple, direct language. Speak in a matter-of-fact manner, and be explicit when talking about particular body parts and sexual practices.
- **Be respectful and nonjudgmental**: Accept that people vary in their gender identity (how they see themselves), in their sexual orientation (who they are attracted to), and in their sexual behaviors. Some patients may want to disclose information about their gender identity, sexual orientation, and sexual behaviors, but others may not feel comfortable doing so.
- **Use neutral language**: Speak about your patient’s “partner” to ensure the conversation is inclusive of all patients. Avoid assumptions by not using terms like girlfriend or boyfriend.
- **Start with a normalizing statement**: A normalizing statement will acknowledge that sex may be important to the patient and to reassure him or her that it is okay to talk about sex. A nurse may say, “Many patients have questions about sexual activity during cancer treatment.” Then, ask for permission to discuss this. A nurse could say, “I have information I would like to give you about being sexually active during treatment. Is this a good time for us to discuss this?” For patients who do not want to discuss sexual health, provide written information and ask them to review it. Follow up by phone or at the next visit.
- **Focus the conversation**: Be clear about the reason for the conversation. A nurse could say, “Sexual activity is pleasurable for many patients, and you can be sexually active during your treatment. However, there are some measures we recommend for your safety.”
- **Introduce specific issues**: Patients will have specific issues related to their disease and treatment. For patients or partners of childbearing potential, a nurse could say, “It is important to use birth control during your treatment to prevent pregnancy.” Provide detailed information about appropriate contraceptive options. For patients identified as being at risk for infection, a nurse could say, “Based on your disease and treatment, you are at risk for infection, so you should take certain precautions.” Alternately, a nurse may say, “Although there have been no reports of partners being harmed by exposure to chemotherapy in semen or vaginal fluid, if you or your partner are concerned, you can use barriers during sexual activity.” Then describe the various barrier options that would be safe and effective for them to use.

Experiment with different ways of stating each of these points until it becomes comfortable. Practice speaking them aloud to be able to have the conversation without embarrassment. At the end of the discussion with your patient, provide written material to reinforce the information you have provided. Cards developed at the authors’ institution may serve as an example to develop a tool for individuals’ practice settings (Memorial Sloan Kettering Cancer Center, 2013a, 2013b).

**American Cancer Society**
- Sexuality for the Woman With Cancer
- Sexuality for the Man With Cancer
- Fertility and Women With Cancer
  [http://bit.ly/1quLPm5](http://bit.ly/1quLPm5)
- Fertility and Men With Cancer

**American Congress of Obstetricians and Gynecologists**
Information on safe sexual activity
[www.acog.org/patients](http://www.acog.org/patients)

**Cancer.Net**
Information on fertility for patients with cancer
[http://bit.ly/1m7Jbl](http://bit.ly/1m7Jbl)

**MyOncofertility**
Information on fertility for patients with cancer
[www.myoncofertility.org](http://www.myoncofertility.org)

**National Cancer Institute**
Sexuality and Reproductive Issues
[www.cancer.gov/cancertopics/pdq/supportivecare/sexuality/Patient](http://www.cancer.gov/cancertopics/pdq/supportivecare/sexuality/Patient)

**Planned Parenthood**
Information on safe sexual activity
[www.plannedparenthood.org](http://www.plannedparenthood.org)

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**FIGURE 2. Patient Resources for Additional Information on Safe Sex, Sexual Health, and Fertility**

[http://www.plannedparenthood.org](http://www.plannedparenthood.org)


[http://bit.ly/1o3HZLc](http://bit.ly/1o3HZLc)


This focused discussion on safety related to sexual activity during treatment may raise a number of related concerns for patients. When discussing the need for contraception to prevent pregnancy, patients may ask questions about their ability to become pregnant and have children in the future. Patients also may ask questions about other aspects of their sexual health when discussing strategies to prevent infection or avoid partner exposure. These issues are beyond the scope of this article. If a nurse does not feel able to adequately answer these questions, refer patients to reproductive medicine or sexual health specialists, and provide them with resources to learn more (see Figure 2).

**Conclusion and Implications for Practice**

Oncology nurses have a significant impact on patients’ experiences during cancer treatment. Sexuality is one aspect of that experience, and providing information on how to maintain sexual activity in a safe way acknowledges its importance to patients’ well-being. Nurses should discuss the various hormonal and nonhormonal options for safe and effective contraception, as well as the use of barrier devices during sexual activity to prevent infection in at-risk patients and to prevent exposure to chemotherapy in body fluids for concerned patients or partners.

Using key principles of communication and a structured approach when presenting information can help to overcome the barriers that make it difficult to discuss sexual health with patients. Only then can we ensure that patients do not share Jaoud’s (2013) experience and think that talking about sex during cancer treatment is taboo.

**References**


(“Safe Sexual Practices During Cancer Treatment” continues on page 472.)