Conventional Radiation Therapy Techniques

Historically, RT planning depended on two-dimensional x-ray images (2DRT). Radiation oncologists would define the target and verify patient positioning using skeletal landmarks and metal wires (which were visible on x-rays). RT was delivered using a limited number of fields (usually 2-3), which were set up as two opposing lateral fields through the upper head/neck region, with a matching anterior field through the lower neck. Critical organs like brain and spinal cord were blocked using metal shielding.

There are numerous limitations to 2DRT. First, the target is only indirectly identified, because it is defined relative to the location of bony landmarks. These are not always good surrogates for actual target location, because of variations in patients’ anatomy and particular characteristics of their cancer. Secondly, using a limited number of fields means that normal organs such as the salivary glands often receive high radiation doses, leading to side effects like xerostomia (dry mouth) and dental disease that diminish patients’ quality of life. Furthermore, in patients with tumors lying close to sensitive central nervous system organs, delivering adequate doses to the tumor was risky or even impossible.

The advent of computed tomography (CT) in the 1980s to 90s spawned the era of 3D conformal RT (3DCRT), which changed the practice of radiation oncology significantly. New computer technologies and software tools allowed the details of patients’ anatomy to be directly visualized. Radiation oncologists were able to define structures directly on a CT scan. Dosimetrists could arrange radiation fields at different angles to create tightly wrapping, conformal dose distributions around the target while more effectively avoiding normal organs. Radiation dose could be calculated precisely in 3D, and this information was used to guide treatment planning. Thus, 3DCRT became the standard for HNC treatment [1].

Despite this advancement, 3DCRT was still limited in many respects. Optimizing RT plans was a trial-and-error process. Radiation oncologists and dosimetrists could choose how to orient beams and shape blocks, but could not fine-tune RT plans to meet specific planning goals. Furthermore, target delineation was inexact. CTs give useful information about the density of different head and neck tissues, but lack information about functional processes at work in these tissues. Finally, compared to modern standards, the accuracy in day-to-day positioning patients was crude, and techniques to account for changing patient anatomy over the course of treatment were not developed. Novel RT technologies have begun to address many of these limitations.

Intensity Modulated Radiation Therapy

Intensity modulated RT (IMRT) is an advanced technology in which beam intensities are optimized to maximize radiation dose to the target and minimize dose to normal tissues. A key feature of IMRT is the use of “inverse planning,” whereby specified dose constraints are
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defined in advance, and computerized algorithms are used to choose the best solution to meet these constraints. Although inverse planning is not essential for IMRT (beam intensities may be modulated manually, so-called “forward-planned” IMRT), it is the most common IMRT approach for HNC.

The major advancement with IMRT (that gives rise to its name) is the ability to modulate the intensity of the beams used in treatment. The most common technique to modulate intensity is with multi-leaf collimators (MLCs). A collimator is a device mounted on the head of the radiation machine (gantry) that shapes the radiation beam. MLCs are comprised of many tiny leaves each of which can be placed under control of computerized motors that move them in and out of the path of the beam. IMRT plans are therefore composed of thousands of tiny “beamlets” that are optimized for each patient’s anatomy. MLCs may be designed to move while the beam is off (static) or on (dynamic). Another way to modulate intensity is with compensators, which are customized metal alloys that allow varying amounts of radiation to pass through. Both MLC-based and compensator-based IMRT have advantages and disadvantages. MLC-based IMRT is used most commonly. It is more convenient than compensators, but requires expensive software and hardware, and may result in more leakage radiation and longer delivery times.

A recent advancement in IMRT is rotational (arc) therapy, which allows RT to be delivered while the gantry is moving in an arc around the patient. Standard IMRT is delivered with a fixed set of gantry angles, with the gantry rotated to a new position after each angle is finished. Arc IMRT allows the computer to take advantage of many more angles from which to deliver the radiation potentially resulting in faster and more conformal treatment delivery. Examples of clinically available arc therapy systems include Tomotherapy® and RapidArc®.

Many steps are involved in the IMRT planning and delivery process. First, a CT simulation scan is obtained with the patient immobilized in the treatment position. Immobilization is necessary to ensure that patients are set up in the same way each day and do not move during treatment. The planning CT is transferred to the treatment planning system, where target and critical organs are contoured. In patients with visible tumor, the radiation oncologist will outline a gross tumor volume (GTV), which includes any tumor visible on the planning images. MRI and/or PET scans may be used to assist with target volume delineation on the planning CT scan. The clinical target volume (CTV) is a larger target that includes the GTV plus any potential areas of microscopic tumor spread. Finally, a planning target volume (PTV) is generated, which includes the CTV plus an additional margin (typically 3-5 mm) to account for daily variations in target position. Radiation dose is prescribed to the PTV. Once the PTV is created, a physicist and/or dosimetrist designs an IMRT plan. After the radiation oncologist approves the plan, physicists run quality assurance tests to verify that the dose delivery is accurate. Finally, the plan is ready to be delivered. The entire planning process may take several days or more.

IMRT planning can significantly reduce dose to organs like the parotid gland, cochlea (inner ear), eye, brain, and spinal cord, while maintaining sufficient dose to the target. One sophisticated application of IMRT is called “dose painting” or “simultaneous integrated boost (SIB)”. A boost treatment is an extra dose given to part of the target, such as a large tumor, in order to increase the probability of tumor control. Boost
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doses are usually given sequentially, following treatment of the larger target. SIB technique allows portions of the target to receive higher doses simultaneously, so that the entire target is treated each day, shortening the treatment course, and delivering higher doses per day to the gross tumor.

Several studies have reported high rates of survival and disease control in patients treated with IMRT [2-4]. Two clinical studies have also shown that IMRT reduces the risk of side effects. Kam et al. [5] conducted a randomized trial to compare xerostomia between 2DRT and IMRT in 50 patients with nasopharyngeal carcinoma. One year after the completion of treatment, the incidence of severe xerostomia was lower in patients who received IMRT (39%) compared to 2DRT (82%). Recently, the PARSPORT trial, conducted in 94 HNC patients, found that at 18 months following treatment, xerostomia was reduced in patients receiving IMRT compared to conventional techniques (20% vs. 81%) [6].

Although IMRT has become the standard RT approach for HNC, it has some disadvantages. IMRT is more costly and generally increases low dose radiation to the rest of the body. There is concern that some side effects may be increased as a result, particularly when chemotherapy is given concurrently. For example, in the PARSPORT study, fatigue was increased in patients receiving IMRT. Increased radiation dose to other parts of the body may increase the risk of late secondary cancers. Ongoing study is important to ensure the long-term safety and superiority of IMRT over conventional techniques.

Image-guided Radiation Therapy

Image-guided RT (IGRT) refers to a constellation of new imaging technologies used to guide RT planning and delivery. Most radiation oncologists in the United States are now using IGRT, and its utilization appears to be increasing [7-8]. There are two broad categories of IGRT. One uses imaging to locate tumor and identify its functional properties, to better guide target delineation. The second uses imaging to ensure accurate patient positioning and monitor changes taking place during treatment, to guide treatment delivery.

CT is limited in these capacities because it only shows contrast between tissues of differing densities (like a 3D x-ray). Increasing availability of sophisticated imaging technologies such as magnetic resonance imaging (MRI), positron emission tomography (PET), and single photon emission computed tomography (SPECT), has increased our ability to localize and characterize tumors. MRI and PET have been especially useful for target delineation in HNC. Both PET and MRI images may be fused with the simulation CT, allowing a combination of different types of information to be used in RT planning. Approximately 40% of radiation oncologists in the U.S. currently use MRI and 70% use PET for RT target delineation [7].

MRI can distinguish different chemical properties of tissues, leading to better soft tissue contrast compared to CT. It is especially useful in imaging tumors of the nasopharynx and base of tongue, and tumors located near the brain and skull, where CT has more difficulty distinguishing from surrounding structures. PET, on the other hand, can be used to image various biochemical properties of cells; for example, 18-fluoro-deoxy-glucose (FDG). PET is useful for imaging cells with increased metabolic activity, like tumor cells. Cells use glucose to create energy; tumor cells use more glucose because they are dividing frequently. With FDG-PET, a patient is injected with a radioactively labeled glucose molecule, which collects in metabolically active cells. A panel in the PET scanner detects the emission of positrons by the radioactive molecule (more precisely, the photons generated by such positrons), allowing tumor visualization. By helping to identify tumor extent lymph node involvement, PET may alter the RT plan in approximately one quarter of patients [9]. Highly sophisticated applications of PET and MRI can be used to image other tumor properties such as low oxygen (hypoxia) or high cellular reproduction. These exciting applications are currently investigational.

Once in the treatment room, it is important to verify the patient is in the proper position prior to delivering RT. Traditionally, this was accomplished by taking a “port film.” With portal imaging, the radiation beam is turned on briefly, exposing a film placed behind the patient with high-energy (Megavoltage or MV) x-rays. The bone anatomy and block shape are compared to the planning image to verify position. This process required personnel to go in and out of the room to set up the film and develop it. A significant technological advancement was the Electronic Portal Imaging Device (EPID), which stores portal images digitally, allowing verification to be done electronically.

One limitation of MV port images, however, is the poor contrast between bone and soft tissue. Low energy (kilovoltage or kV) x-rays, such as are used for diagnosis rather than therapy, show better contrast. Newer radiation machines have kV x-ray imagers in the treatment room, either mounted in the wall or onto the gantry, allowing diagnostic quality films for positioning verification. Examples of such technologies include CyberKnife®, Novalis®, XVI®and OBI®.

An alternative to x-ray imaging for setup verification is video alignment. The advantage of video is that it does not add undesirable radiation exposure. In addition, video monitoring of a patient’s surface contour during treatment may obviate the need for uncomfortable masks currently used for immobilization. Several video systems are now available and are becoming increasingly implemented in radiation oncology clinics.

A major advancement is in-room 3D imaging. This is an exciting technology because it can allow better visualization of the anatomy, in the same way a CT scan provides more information than a plain x-ray. It also allows the potential to adapt radiation plans “on-the-fly” to changes that occur during treatment. However, such adaptive radiation techniques require further study before gaining routine use. Currently, 3D imaging is used to guide patient setup, to ensure highly accurate treatment delivery. One technology (CT-on-rails) connects a CT scanner to the treatment table via a set of rails so that CT images can be acquired without the patient changing position. A drawback of CT on rails is that the patient must be moved from under the accelerator gantry to the CT gantry and then back again which is cumbersome and time consuming. Another technology (cone beam CT (CBCT)) uses a kV CBCT scanner mounted to the gantry, so that a scan can be taken while the machine rotates around the patient. Another technology is Tomotherapy®, in which the radiation is delivered in a rotational pattern much the same way that a CT scan is obtained. This machine can also acquire in-room MV CT images.

IGRT technologies have substantially increased the precision in treatment of HNC. However, there are some concerns about widespread use of IGRT. These include the extra time and expense, inconvenience to patients, additional radiation exposure, and uncertainty about its overall benefits. Moreover, imaging quality has still not advanced to levels where microscopic tumor cells can be accurately
IMPROVED TREATMENTS on page 3 located. High-tech imaging such as MRI is not yet available in the treatment room. Developing new IGRT applications and evaluating their clinical benefits are ongoing endeavors in radiation research.

Stereotactic Body Radiation Therapy
A recent advancement in HNC is stereotactic body RT (SBRT), including stereotactic radiosurgery (SRS). The term “stereotactic” refers to ultra-precise target localization in 3-D space (within about 1 mm). This technology has long been used to treat brain tumors, in order to deliver high radiation doses in one or a few fractions (hypofractionation), employing tight planning margins to minimize collateral damage. Classically this technique requires rigid patient immobilization in a head frame, multi-angle beam delivery, and high quality imaging for target localization[10]. Hypofractionation has potential advantages over standard techniques, such as higher tumor cell kill and shorter overall treatment duration. It is most suitable for target volumes less than about 5 cm[3].

With advances in in-room imaging technologies, it is possible to position patients to within 2 to 3 mm, allowing for hypofractionated techniques to treat certain extracranial tumors (e.g., SBRT). Patient positioning and target localization may occur in several ways. At the University of California San Diego (UCSD), HNC patients are positioned in a non-invasive head frame with a block inserted in the mouth to ensure head rigidity. The block is localized in the treatment room by infrared sensors to position the patient with high accuracy. Kilovoltage CBCT images are obtained to verify positioning. An IMRT or arc therapy plan is delivered, typically in 5-6 fractions, using the Trilogy® system. At UCSF, we have started using video technology to treat patients with SBRT without a head frame or bite block. Other SBRT technologies include CyberKnife® and Novalis®. The CyberKnife® system obtains highly conformal dose distributions by rotating the gantry under a robotic arm and uses wall-mounted kV x-ray imaging to verify positioning. Novalis® uses fine beam shaping with MLC and wall-mounted kV x-ray imaging to deliver precision RT. No one SBRT system has proven advantages over another.

In HNC, SBRT has been used to treat both new cancers and recurrent cancers in previously irradiated patients. Heron et al. conducted a phase I clinical trial of SBRT in 25 previously irradiated patients with recurrence. They found that a dose of 44 Gy in 5 fractions was well-tolerated without severe toxicity[11]. Siddiqui et al.[12] studied SBRT in 44 patients with primary or recurrent HNC, using 13-18 Gy in a single-fraction or 36-48 Gy in 5-8 fractions. Tumor control rates at 1 year were 83% and 60% in the primary and recurrent groups, respectively.

Conclusion
Advanced radiation therapy technologies have revolutionized HNC treatment and are providing unprecedented levels of RT precision. Research to improve the quality of imaging and RT delivery techniques is ongoing. Many studies support the use of these technologies, but further study is needed to evaluate their ultimate benefit for HNC patients.

REFERENCES
A TIME FOR SHARING

My name is Ronnie Trentham. I live in a small town in Oklahoma near the Arkansas border. My story starts back in 1994 when I was diagnosed with sarcoidosis, a disease similar to lupus. After a 6-year fight with that disease, I felt like I had it under control. Then in 2003, on a visit to my ENT doctor, she asked me about a sore in my mouth. I told her that it had been there for a few days and that I must have bitten my cheek during the night. So she took another look and then gave me a prescription for some mouthwash and asked me to use this for a few days and then to call her if it wasn’t any better. Well, 3 days later it was worse, so I called the doctor and was seen again; this time a biopsy was done and tissue sent to the lab.

At this point, my wife and I were a little worried. (Oh, by the way, my wife Lorie, a nurse, works at the same hospital as my ENT.) A few days passed and the doctor called and said she wanted to see us as soon as possible. We went to the office and the doctor explained that she had some bad news. “Ronnie,” she said, “I’m sorry to have to tell you this, but you have cancer.” Then we were really worried!! We talked about this cancer called squamous cell carcinoma. Before we left, the doctor asked if it would be all right to pray for us before we left. I responded “yes, please.” It was then that I found out what a great person my doctor really is.

Then we started our fight against cancer. I say “we,” because I have never been alone in this battle. I have the most amazing wife, daughters, family and friends. Ok, now we have to deal with this cancer, so we found a doctor in Tulsa and had it removed within a week of diagnosis. There were problems with this first surgery but we got past them and moved on. Soon after surgery I had radiation therapy to try to eliminate any cancer that might have been missed.

In the following months I started noticing that I was having trouble opening my mouth. I had developed trismus, a side effect of the radiation treatment. Even now I can only open wide enough to put one finger between my front teeth. Over the next few months I learned to deal with the trismus and my mouth healed pretty well, or so I thought.

I was close to turning 40 years old and had always had good teeth, but one morning I woke up with a toothache. This was the first one that I have ever had, so I knew something was wrong. The pain was on the same side as the cancer had been so I went to the doctor that day. After talking to my doctor and my dentist I had two teeth pulled and a tissue biopsy taken. When the results came back we were told that the cancer was back in the jaw bone and immediate action was needed.

I asked my ENT to help me find a doctor who could do this surgery. Two hospitals rose to the top of the pile, Oklahoma University (OU) Medical Center and M. D. Anderson. OU was our first choice because it was closer, a 3-hour drive instead of 12 (the first of many drives). When we got there my wife and I met with the head and neck surgeon. This surgeon brought several doctors into the room with him and talked to us as he examined me. Next he took us to another room and put a scope up my nose and down into my throat. When he finished his exam he told us just how serious the situation really was and what our options were.

Option #1 would be to go home and try to manage the pain with meds. I would have 3 to 6 months to live. Option #2 meant having this big surgery that would remove part of my jaw bone, replace it with a piece of bone from my leg. I would also need a major neck dissection, and I would have a tracheostomy and a long hospital stay. The surgeon went on to explain the risks with this type of surgery and asked us to go home, talk it over, and let him know what we wanted to do. This was a very big decision!

At this point I turned to look at my wife; she was crying, I asked her if she understood what the doctor was telling us, and she said yes. Next I asked if she needed time to talk about this. I think she said no, but she was still crying so I might have misunderstood. I turned to the surgeon and said, “I’ll take the surgery doc, and we can start now if you have time.”

The decision was big, but for me it was easy. My wife and I have two beautiful girls at home, and they give me reason to LIVE!! So I had the surgery. The surgeon took the cancerous part of bone out and another surgeon took bone and tissue needed from my leg and put me back together.

Now I need to tell you that I love life and it is rare that I’m serious. I like to joke with people and have a good time. Ok, I need to back up for a bit. When the second surgeon explained his part of the surgery, he told me that I will grow leg hair in my mouth. All this time I had made little jokes here and there so I thought he was pulling one on me. Well guess what? He wasn’t joking. It took a little while to grow and for me to figure it out, but one day I started feeling something weird in my mouth and just couldn’t get it out. Sometimes I tell people that I looked like a handicapped dog eating peanut butter and later I told them I was growing my own dental floss. My family and friends laugh with me, and I think it helps us all to deal with the situation.

Now you should know that I take cancer very seriously but laughter is often good medicine. Ok, back to the surgery. The head and neck surgeon had explained everything very well and told me it would not be easy; he was right. I was in ICU for 5 days, and it was very painful!! I was trying to be a good patient and trying not to let my wife and girls see me hurting, but I’m afraid they did. They gave me a little button and told me when I felt pain to push it for pain meds. I must have pushed it a thousand times: I think it was broken. I’m not sure which hurt worse, my leg or my jaw, but I can tell you the pain button was getting a work-out.

That was the biggest surgery I had, and we all hoped it would be the last, but there were more to come. The cancer came back twice in the roof of my mouth, once in the left side of my neck and then the right parotid gland. So six cancers and six surgeries! However after number SIX the decision was made to have chemo and radiation. My chemo was done at Highlands Oncology and my radiation at NARTI, both in Fayetteville, Ark. It would take a lot longer than I have to tell you about the great bunch of doctors, nurses, and staff that took care of me at both places. So I’ll just say they were great and I still go by to see them from time to time. I was given Erbitux once a week for 7 weeks. I also had an amifostine shot each day 45 minutes before my radiation treatments to try to save some salivary response.

Our first meeting with the radiation SHARING continued on page 6
At this point I was very glad that the doctor had advised me to get a port and a PEG tube before I started treatments. I started having burning sores inside and outside of my mouth which made it very hard to eat. The port was a blessing because my veins were not very good. I was having a tremendous amount of mucus and thought it might drown me! So we rented a portable suction machine and I slept in a chair because I couldn’t lay flat without choking.

The great news is my wife finally talked me into going to a SPOHNC meeting. There I found help with the problems I was having and support from people that had been through similar things. SPOHNC has been great for both me and my family during my fight with cancer. I enjoy volunteering and talking to people at our meetings and through the survivor network. I hope that I have been a help to others who have had a similar battle with cancer.

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Caregivers Corner…6 Basic Steps for Caregiver Self-Care

In the first “Caregivers’ Corner”, we discussed the immense scope of tasks and responsibilities that caregivers must assume, sometimes overnight with little preparation or training. Last time, we talked about caregiver doubts and emotions. Many caregivers feel as if they are on an emotional roller coaster. This can lead to physical and emotional fatigue and at times, exhaustion. Therefore, I would like for us this time to take a look at caring for oneself and the physical, emotional, spiritual and yes, medical, importance of this.

In the midst of your expanded role carrying intense emotions and challenges, it’s vital that you learn to take care of yourself. Many caregivers feel guilty taking time to do something for themselves while their loved one is ill. You may need to first give yourself permission to do so. In light of the approaching holidays, this may become even more important.

What can you do, starting today, that will make a difference for you? You don’t ever have to be the same after today. People can do incredible things, unbelievable things, despite the most impossible or disastrous circumstances. You have lived all your life to come to this day, to this moment. There may be different ways to travel this road that will help you maintain your physical and mental health over the long run.

Take a look at what other caregivers have found to be helpful …

1. Self-Care: Feeding Your Body
   “My body is literally my caregiving machine. I have to take care of it.”
   - Exercise — pump up your body by walking at least 10 minutes a day.
   - Sleep — rest your body for 6 to 8 hours a night.
   - Eat right — feed your body, nutritionally and regularly, including breakfast. Eat lots of vegetables, fruit and whole grains.
   - Drink plenty of water.

2. Self-Care: Feeding Your Mind
   “I was scared all the time until I learned that the definition of fear is ‘Future Events Appearing Real.’ As long as I focus on the present, I keep from getting scared.”

   In part, our energy and mood are direct products of what we think about. During this time of stress, it’s vital to control your thoughts to focus on today. Otherwise, thoughts may spin out of control with worry about what tomorrow might bring, creating a sense of chaos, fear, anxiety and uncertainty. Our thoughts are like tools; they can be used for building up our confidence or tearing it down. Only you, not circumstances or other people, can control what you think about.

   Are you using your thoughts well and productively, or do you feel victimized by them? You are what you think. You’re the boss of what you think about. You’re in charge of your mind — no one else.

   Some caregivers find writing in a journal a good way to sort thoughts and feelings. It can serve as a soothing process to empty the mind of stress. Support groups also are useful as they provide a safe place to sort things out and to balance one’s perception of reality. Others use reading, music or meditation for thought control.

3. Self-Care: Feeding Your Soul
   “Where is God in all of this?”

   Living a life with cancer at the forefront carries three dimensions: physical, emotional and spiritual. Searching for spiritual sustenance is one of the exercises that many caregivers experience in their quest to make sense of this time in their lives. As their spiritual life begins

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CAREGIVERS CORNER from page 6
to broaden in searching for meaning and deeper understanding, many find that their priorities become rearranged. What was thought to be important before cancer — such as striving for material goods or worldly success — may now seem trivial and unimportant. What may emerge is the growing awareness and appreciation of the importance of faith and relationships with loved ones.

Pray and meditate — feed your soul. Seek spiritual sustenance. Learn from one caregiver who prays,

“Even though my loved one has this cancer, help me to learn to live, really live, this day.”

4. Self-Care: Preserving Your Energy

“My whole life has changed. I have no time for myself.”

When possible, learn to unplug yourself from your patient and replug into something that will energize you and bring a greater sense of peace and pleasure. It’s important to get away from cancer to recharge your battery so that you can come back refreshed and fortified to tend to your patient. Sometimes, just carving out 10 minutes for yourself can help rejuvenate and restore.

You have a very hard job. You likely are doing everything you reasonably can to take care of your loved one. Begin to learn to run on “premium caregiver fuel” by feeding your mind, your body and your soul with thoughts and activities that build, nurture, comfort and strengthen. This will conserve your energy over the long run.

Be good to yourself. You have the right and the responsibility to take care of yourself. This is not selfish, it’s self-care. Taking short breaks now will give you the energy and strength to stay in this for the long haul.

This is exceedingly important, but difficult for caregivers to give themselves permission to do. Many caregivers may feel guilty when they leave the patient’s bedside, when medically appropriate, to go do something pleasurable for themselves. However, research studies show that caregiver self-care is medically necessary for you to stay mentally and physically healthy and strong.

5. Self-Care: Evaluating Your Priorities

“I started to become realistic. I didn’t cause this cancer. I can’t cure it or control it.”

Becoming realistic can be a mind-altering experience. Consider letting go of the idea that you are Superman or Superwoman.

• Practice being clear in your mind about what your job really is.
• Are you over-functioning for your patient? Are you doing things that your loved one is capable of doing for himself/herself? This is not unusual, especially in the beginning. Be clear in your own mind what is really happening right now, not what “might” happen. Set reasonable limits with your loved one. Determine what self-care tasks he/she can do. A gentle reminder may be: Don’t do for your patient what he/she is capable of doing for himself/herself.
• Take stock of the things that are really important that “must” be done, not what “should” be done. As one caregiver said: “I made a list of the things that I absolutely had to do, like organize medications, schedule appointments, etc. I made another list of things that I was doing that just didn’t really matter in the big picture. I just let those things slide off my back.”
• If possible, delegate some responsibilities. Recruit others to help you.
• Learn some practical problem-solving techniques, such as how to manage medication side effects, organize a medication sheet, and develop strategies for symptom control of pain, nausea or fatigue.

6. Self-Care: Finding Your Strengths

“I’ve been able to do things that I never in a million years thought I could do.”

Identify your strengths. Some caregivers have a hard time doing this. Your personality is unique and you bring talents and gifts to this demanding role of caregiving. What is it that you bring to the table that strengthens this situation that no one else can, or is willing, to do? What have you learned through this experience? Other caregivers have identified their strengths and you can, too. Focus on what you’re good at doing.

I hope this article will serve as a point of encouragement to you as you begin practicing the art of self-care. Please remember, this is not self-ish, but self-care.

Next time, we’ll address “10 Practical Tips for Highly Effective Caregivers” and “12 Ways to Increase Caregiver Knowledge”. Stay tuned….

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Although depression is a common complication in patients with cancer, especially head and neck cancer, it is often overlooked. The reasons for this have to do with the very nature of depression and the difficulty teasing apart depressive symptoms from symptoms and reactions related to the illness and its treatment. The focus of this article is to help patients and their loved ones to recognize symptoms of significant depression in order to foster recognition and treatment. A future article will describe approaches to treatment.

Most of us have experienced transient depressive symptoms at some time in our lives. It is important to recognize that in MAJOR DEPRESSION these symptoms are serious and persist over time. The mood of major depression may be low, angry or apathetic and is typically associated with other disabling symptoms such as fatigue, lack of appetite, loss of interest, tiredness and sleeping too little or too much. More severe cases are associated with feelings of worthlessness, excessive guilt and poor concentration. Untreated depression will sometimes progress to a state of apathy about life and living or preoccupation with death. This lack of orientation toward the future may progress to a wish for death or consideration of suicide.

Depressive syndromes differ in individuals but in general at least 5 of the above symptoms must be present on all of most days for at least 2 weeks to meet criteria mental health professionals use to diagnose MAJOR DEPRESSION.

There are significant challenges in diagnosing depression in patients who are ill with cancer, especially as treatment progresses. It is common and normal to respond to a diagnosis of cancer with disbelief, denial or despair. It is a common misconception that patients with cancer are depressed or should be. For most patients these symptoms normally abate as they adjust to the illness. Many of the core symptoms of depression are symptoms commonly experienced by cancer patients – such as feeling down or upset, fatigue, sleep problems and loss of appetite with weight loss. In some head and neck cancer patients, whose habits such as heavy alcohol consumption and nicotine use may have contributed to their illness, it is not unusual to grapple with guilt, at least initially. It is often difficult to judge when such guilt is excessive and some would argue that any guilt is excessive. Once again, this symptom should abate as the patient adjusts to his/her illness. Guilt is a problem because it may get in the way of healthy coping and focusing on treatment and healing. It is also common for the patient with head and neck cancer to struggle with changes in body image and self concept due to disfiguring surgery, disability and challenges in communication. For some patients, pain related to the tumor may become an ongoing problem. Each of these may contribute feelings of depression. Whether this will happen may depend on factors such as their previous self concept, frustration tolerance, perceived social support or whether they have a genetic predisposition to depression.

Concern about a serious or dangerous depression should be raised when one or more of the following are present:

- neglect of self care
- passivity or disengagement
- excessive guilt
- losing touch with reality (hallucinations or delusions)
- having nothing to look forward to, hopelessness
- death wish or suicidal plan or intent*

Two other conditions which may involve symptoms common to depression are important to keep in mind and should also urgently be brought to the attention of the treatment team. Patients with uncontrolled pain may make a suicidal comment such as “I can’t stand this pain. I just want to die.” Very often, what needs to be addressed in this patient is their pain management, not depression. It is important to remember that uncontrolled pain is a risk factor for suicide and should not be ignored. Secondly, confusion and agitation may signal the development of delirium. Delirium is a medical condition where the patient’s brain malfunctions because of a serious, acute problem such as infection or kidney or liver problems. Paranoia, anger and unusual behavior are often present in delirium. The elderly and chronically ill are especially susceptible to the development of delirium. If there is concern about delirium, the patient’s treatment team should be called and the patient should be taken to the emergency room even if that means calling 911.

It may be difficult for a family member or friend to approach a loved one with a concern about depression but often this will be experienced with relief that their suffering has been recognized. To freely and openly discuss depression may also help if there is worry about the stigma of such a condition. If depression is complicating treatment and/or recovery from cancer, it needs to be brought to the attention of the patient’s doctor or treatment team. This may be the primary care doctor, head and neck surgeon, radiation oncologist or medical oncologist, whoever the patient feels most comfortable talking to. This topic may also be broached with the program’s social worker or nurse. While such conversations require the patient’s consent, it is important to remember that deepening depression may prevent the patient from seeking help for themselves. This situation may become complicated but most patients will not hold on to resentment when a family member simply shares their worry with the treatment team who may then talk to the patient.

To end on a positive note, it is important to remember that depression is very much treatable with medication and other interventions. Recent studies have shown that treatment of depression may improve overall cancer treatment outcomes and adjustment to future life. Treatment of depression will be discussed in the next issue of the SPOHNC newsletter.

Editor's Note: Dr. Solberg is Chairperson of the Department of Psychiatry at The Greater Baltimore Medical Center (GBMC) in Baltimore, MD and is a consultant to the Milton J. Dance, Jr. Head and Neck Center at GBMC.

*Patients who have expressed hopelessness, a wish to die or a plan to harm themselves should be brought to the immediate attention of their doctor or care providers.

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**DEPRESSION IN HEAD AND NECK CANCER PATIENTS**

Kim K. Solberg, MD

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CHAPTERS OF SPOHNC

GEORGIA-AUGUSTA
MCGHealth Children’s Medical Center
Family Resource Center
1st, Tuesday: 6:00-7:30 PM
Lori M. Burkhead, PhD, CCC-SLP  706-721-6100
lburkhead@mccg.edu
Leann Dragano
dragano@bellsouth.net

ILLINOIS-CHICAGO
Duchossois Ctr. for Advanced Medicine
4th, Tuesday: 1:00 PM
Mary Herbert  773-834-7326

ILLINOIS-MAYWOOD
The Cardinal Bernardin Cancer Ctr.
1st, Wednesday: 6:30-7:30 PM
Kim Webster  410-955-1176

KANSAS-KANSAS CITY
Dorothy Austin, RN, OCN  913-588-6576
Becky Kopke, RN, BSN, OCN  732-923-6473
BKopke@SBHCS.com
Amber M. Pfister, MSW, LSW  732-923-6961
ampfister@aol.com

KANSAS-THE LEAVERS
Mary Herbert  773-834-7326

MARYLAND-BALTIMORE-GBMC
Milton J. Dance Head & Neck Center
Physicians Pavilion East Conf. Ctr.
1st, Tuesday: 7:00 PM
Dorothy Gold, LCSW-C, OCW-C  301-360-2623
dgold@gbmc.org

MARYLAND-BALTIMORE-HJMI
Johns Hopkins – Greenspring Station
2nd, Wednesday: 7:00-8:30 PM
Kim Webster  410-955-1176

MARYLAND-BALTIMORE-GH
NorthShore University Health System
Call for location
2nd, Wednesday: 6:00-7:00 PM
Meg Madrig 847-570-2039

MINNESOTA-MINNEAPOLIS
Hennepin/Southdale Library
1st, Tuesday: 6:00-7:00 PM

MISSOURI-COLUMBIA/MID-MO
Ellis Fischel Cancer Center
2nd, Wednesday: 5:30-6:30 PM
Laura M. Neal, MSW, MPH, LCSW
716-845-4947
nNeal@health.missouri.edu

MISSOURI-ST. LOUIS
St. Louis University Cancer Center
4th, Friday: 10:00 AM - 12:00 noon
Deborah S. Manne, MSN, RDH, RN, OCN
314-577-8801;  manned@slu.edu
Cathy Turcotte, RN, MN  314-268-7051
turcotte@slu.edu

MONTANA-BOZEMAN
Bozeman Deaconess Hospital
3rd, Tuesday: 3:00 PM
Douglas Stiner  406-586-0828
ndgnick@theglobal.net

NEW JERSEY-ALBANY
Gilda’s Club
3rd, Thursday: 7:00-9:00 PM
Joseph Ciccarelli 618-882-9742
jciccarelli@nycap.rr.com
Norma Neapolitano 518-683-9518
neapolitano@nycap.rr.com

NEW JERSEY-BERGEN}
Mount Sinai Medical Center
Call for location
3rd, Tuesday: 3:00 PM
Stephanie Eisenman, LMSW  212-241-7962
stephanie.eisenman@mountsinai.org

NEW JERSEY-MORRISTOWN
Morristown Memorial Hospital
1st, Wednesday: 2:00-3:00 PM

NEW JERSEY-PHILADELPHIA
University of Pennsylvania Hospital
1st, Wednesday: 9:30-11:00 AM

NEW YORK-BUFFALO
Roswell Park Cancer Institute
3rd, Tuesday: 4:30-6:00 PM

NEW YORK-ALBANY
Gilda’s Club
3rd, Thursday: 7:00-9:00 PM
Joseph Ciccarelli 618-882-9742
jciccarelli@nycap.rr.com
Norma Neapolitano 518-683-9518
neapolitano@nycap.rr.com

NEW YORK-MANHATTAN
Mount Sinai Medical Center
Call for location
3rd, Tuesday: 3:00 PM
Stephanie Eisenman, LMSW  212-241-7962
stephanie.eisenman@mountsinai.org

NEW YORK-MANHATTAN
Mount Sinai Medical Center
3rd, Tuesday: 3:00 PM

NEW YORK-MANHATTAN
Beth Israel Head and Neck Institute
4th, Tuesday: 1:30-3:30 PM

NEW JERSEY-ALBANY
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1-800-377-0928

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NEW YORK-MANHATTAN
NYU Clinical Cancer Center, 11th flr
1st, Tuesday: 2:00 PM
Carole Wind Mitchell, RN 212-731-6002
carole.mitchell@nyumc.org

NEW YORK-ROCHESTER
Strong Memorial Hospital
1st, Tuesday: 4:30-6:00 PM
Sandra Sabatka, LMSW 585-276-4529
Sandra_Sabatka@URMC.Rochester.edu

NEW YORK-STONY BROOK
Ambulatory Care Pavilion
1st, Wednesday: 7:30-9:00 PM
Dennis Staropoli 631-682-7103
den.star@hotmail.com

NEW YORK-SYOSSET
NSLIJ-Syosset Hospital
2nd, Thursday: 7:30-9:00 PM
Christine Lantier 631-757-7905
clantier@optonline.net
Mary Ann Caputo 516-759-5333
mary.ann.caputo@spohnc.org

NEW YORK-WESTCHESTER
White Plains Hospital Cancer Center
2nd, Thursday: 7:00 PM
Mark Tenzer 914-328-2072
tenzer1@optonline.net

NORTH CAROLINA-ASHVILLE
Call for additional information
Kathleen Godwin 828-692-6174
kgodwin@morrisbb.net

NORTH CAROLINA-CHAPEL HILL/DURHAM
Cormocopia House
3rd, Wednesday: 6:00 PM
Dave Gould 919-493-8168
dave.gould@da.org

NORTH CAROLINA-CHARLOTTE
Blumenthal Cancer Center
2nd & 4th Thursday: 1:30-3:00 PM
Meg Turner 704-364-7119
trappi6@yahoo.com

NORTH CAROLINA-HENDERSONVILLE/WNC
Pardee Health Ed. Ctr. Blue Ridge Mall
2nd Tuesday: 5:00-6:30 PM
Kathleen Godwin 828-692-6174
kgodwin@mchsi.net

OHIO-CLEVELAND
Cleveland Clinic at Fairview Hospital
Tom Wurz 440-243-6200
2nd, Thursday: 4:00 PM
roce@hottem.com
Gwen Paull, LISW 216-476-7241
gwen.paull@fairviewhospital.org

OHIO-LIMA
St. Rita’s Regional Cancer Ctr.
The Allison Rad/Onc. Ctr.
Garden Conference Room
3rd, Tuesday of even month: 5:00 PM
Holly Metzger, LMSW419-996-5606
hjmetzger@health-partners.org
Linda Glorioso 419-996-5616
ldglorioso@health-partners.org

OHIO-Dayton
The Chapel Room
One Elizabeth Place
Hank Deneski 937-832-2677
2nd, Monday: 6:00-8:00 PM
hdeneski@mindspring.com

OKLAHOMA-TULSA
Hardesty Public Library
1st, Tuesday: 6:30 PM
Christine B. Griffin, RN 918-261-8858
beritgriffin@cox.net

OREGON-MEDFORD
Providence Medical Center
2nd, Friday: 12:00-1:30 PM
Richard Boucher 650-269-8323
richard.boucher@hp.com

OREGON-THE WILLAMETTE VALLEY
Samaritan Reg. CA Cat. Library
2nd Wednesday: 5:00-6:00 PM
Lisa Nielsen 541-757-9882
HNCsurvivor@comcast.net

PENNSYLVANIA-HARRISBURG
Health South Lab
3rd, Tues: 6:30 PM
Joseph F. Brelsford 717-774-8370
jfbrelsford1@mmm.com

PENNSYLVANIA-MONROEVILLE
Inter Community Cancer Center
Last Friday of month: 3:00 - 4:00 PM
Beth Madrishin 412-856-7740
bmadrish@wpahs.org

PENNSYLVANIA-YORK
Apple Hill Medical Center
2nd, Wednesday: 5:00 PM
Dianne S. Hollinger, MA, CCC-SLP
717-851-2601
dhollinger@wellspan.org

VIRGINIA-CHARLOTTESVILLE
Dept. of Forestry Building, Suite 800
Last Thursday: 11:30-1:00 PM
Vikki Bravo 434-982-4091
vsbrv@virginia.edu

VIRGINIA-FAIRFAX
Inova Fairfax Hospital,
Radiation/Oncology
2nd, Wednesday: 5:30-7:00 PM
Corinne Cook, LCSW 703-776-2813
corinne.cook@inova.com

VIRGINIA-NORFOLK
Sentara Norfolk General Hospital
3rd, Monday: 7:00 PM
Cynthia Gilliam 757-652-6653
beachdolphin@aol.com
Dee Gibson 757-481-0705
Dee1141@cox.net

WASHINGTON-SEATTLE
Evergreen Hospital Medical Center
Call for Additional Information
Kile Jackson 425-788-6562
kilejackson@hotmail.com

WASHINGTON-SEATTLE
Virginia Mason Cancer Institute
Correa C conference Rm.
3rd, Thursday: 6:00-7:30 PM
Susan (Sam) Vetto, BSN, RN, BC 206-341-1720
susan.vetto@vmc.org
Joanne Fenn, MS, CCC-SLP 206-215-1770
joanne.fenn@swedish.org

WISCONSIN-MADISON
Univ. of Wisconsin Hospital
ENT Clinic Rm. G3/206
1st, Wednesday: 11:30-1:00 PM
Rachael Kammer, MS, CCC, SLP 608-263-4896
Kammer@surgery.wisc.edu

E-mail-- info@spohnc.org
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