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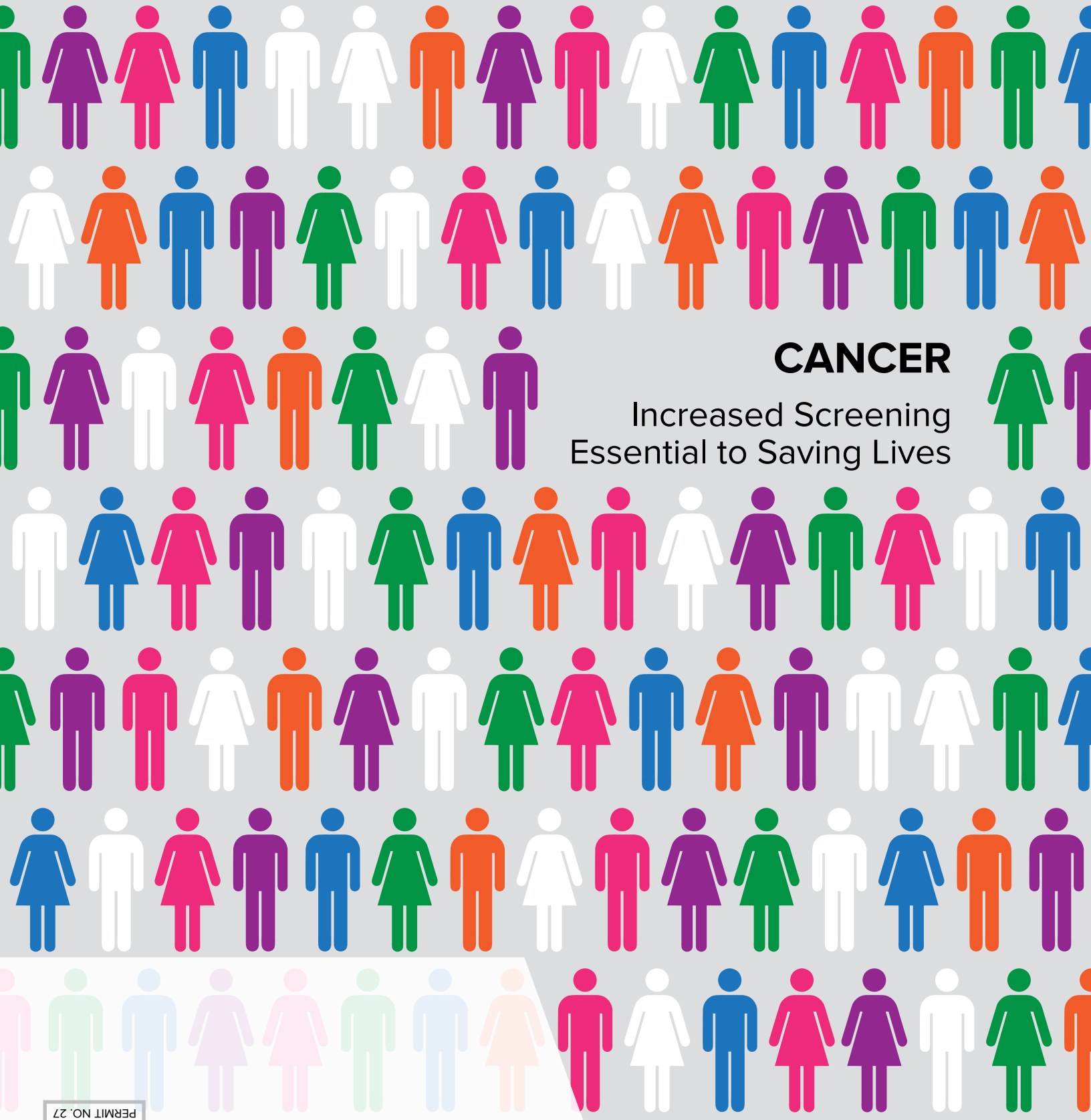

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President's Message

by Robert B. Rhodes, MD, FAAFP
NMA President

The following piece is Dr. Rhodes' inaugural speech from the September installment ceremonies.

Dear Rob Rhodes, MS-IV, University of South Dakota School of Medicine:

I am writing this to you, Rob, as a fourth-year medical student - it is 1994 in your world and soon you will graduate with your medical degree. For me, it is 2017 and Robert B. Rhodes, MD, Board Certified, Fellow of the American Academy of Family Physicians, is now the president of the Nebraska Medical Association. I know, you don't even know what they do, or what the letters NMA mean, let alone you wonder where you came up with the money to join to be a member! But believe me, this association will have a profound effect as advocates for physicians and for your patients.

You have passion, energy, drive, and are eager to learn. You apply that Iowa farm boy work ethic daily and grit will be what differentiates you. You will make mistakes and learn from them because if you are not making them, you are not trying. Med school has been a mental boot camp of many talented men and women that were top in their classes before they stepped into the gross anatomy lab and worked on their first patient: Ted - he was dead.

Looking back, our mantra was C=MD: get a C and you passed. Don't forget the oath you are about to recite with your classmates. So many late nights drinking Mountain Dew, not sleeping well, no exercise, breathing a sigh of relief on Monday nights after test days, and drinking bad coffee - it is hard to be a good role model of health! Someday soon you will preach the benefits of mind, body, and spirit and you will give better advice over your career!

Over 10,000 hours of medical school; four years of your life you cannot get back. It is the beginning of a delayed gratification mentality. Be frugal and also be realistic and when it comes to investments, don't buy stocks based off of overheard conversations in the doctor's lounge!

And to think these last four years may not have happened as you were an alternate to most medical schools. You want to help change the world as a young doc and you are moving forward. You are bright eyed with a full head of hair and a dedicated heart to medicine. I hope you keep these same traits because things will make you smile some days and cry on others. This medical career will challenge and knock you down over the next 20 years. There will be times of celebration, awe, and success, and some days, Rob, it will be to the point that you will ask yourself if it was worth it. Would I do it again? Keep reading, I will share with you why it is definitely worth it.

It's 1994, you are finishing up your med school, and you are anxious to graduate and move to Lincoln to start your family medicine residency with the Lincoln Medical Education Foundation/UNMC program. In residency you will learn from some of the best of community docs - you will also learn from others on how you DON'T want to practice. You will head to Geneva for two months and your outstate rural rotation. It will tempt you to go back to your roots and look at rural medicine; it helps you respect those small-town docs and providers even more. You put in moonlighting hours at many small town ERs where you learn that ACLS saves lives, and you run codes with confidence on the outside and a literal screaming fear inside. Medicine is sometimes like being a pilot: lots of preparation and downtime with moments of actual raw terror. Just land the plane, or just save the life. You will learn that sometimes you cannot save someone. That is a sobering reality. Just remember that God heals and you get to submit the bill.

You are strong on the outside, but always trying to prove that you belong. Maybe it's that flashback to almost not getting into med school or your competitive spirit, but you will learn to trust your gut and follow your heart. You will always try to do what is right. Unfortunately, you will not make every patient happy, and you will not always be right. Sometimes, despite your best efforts, bad things happen. You will get sued. During that time it will be emotionally and physically draining. You will get drilled by an attorney that will make you feel you received your medical degree on a Pacific island, and you printed the diploma yourself. Be strong, pray a lot, and seek peace and patience. Know it happens to almost every doc at least once in their career and that you will endure and survive. In fact, instead of dwelling on the doubt the situation creates, you

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President's Message (continued)

learn from it and initiate policies to improve.

Always remember that you are only as good as your nurse, front desk staff, and medical records expert. It takes each of them for you to see just ONE patient. You will find truly dedicated folks like a physician assistant that will be by your side for over 17 years. You owe each person on your team a huge thank you and high five. Your team will save lives. Your thank you from patients will be fresh eggs, homemade jams, and hand written notes. Write one back to them, and it will go a LONG way.

There will be many events where you will witness the strength of your patients. Some patients will show you how they tackled heart disease with heart, cancer with courage, and pain with prayer and perseverance. But there will be four major events that will cross over from your personal life and also make you a better doc, person, and Christian.

Early in your career, you tend to value being the last one to leave the parking lot and by the number of meetings you put on your calendar. But a short little nurse at church will be persistent; she will pull at your coat and your heart until you make time for a medical mission trip and return with a fire to help those in your backyard. It will be the start of what is called Clinic with a Heart and it will change the lives of the least, the last, and the lost. It will be Lincoln's first free clinic and it will provide free medical, dental, PT, chiropractic, behavioral health, spiritual, optometry, and audiology services to the homeless, uninsured, and underinsured. *This organization will make a difference, and the people involved will become your heroes.*

You will be proud to be the godfather of eight children. One of these gifts, Maddie, at 9 years old, will experience liver failure and be life-flighted from the University of Iowa to UNMC. How could this happen? Wilson's disease - I remember it from boards, but what is it again? You work during the day, and drive up to Omaha to spend nights with the family as she endures a bilirubin of 14, LFTs off the chart, and an INR of 15 with the threat of a cerebral bleed. If any of the worst happens while she is waiting for a liver transplant, the cruel irony is that SHE becomes the donor. Mick, her dad, courageously starts the testing to donate half of his liver to his daughter, the true measure of a loving sacrifice. Just hours before he is about to have surgery, news comes that there is a donor. As we rejoice in the news, a family in another state grieves the loss of their child. *One family's loss was someone else's gain*.

For years you share the sadness with families watching loved ones suffer. You hoped that they could find comfort in knowing in death that they would be healed. Having watched your hard working, kind-hearted mentor, your dad, endure through nine lives of farm accidents, a couple cancers, and finally Alzheimer's, your mom and sisters will be there with you as you watch your dad take his last breath. *It is an experience that you don't care to share too often, but on that day, you will be able to FEEL the relief of your dad passing onto a better mind and body.*

Your oldest patient is 102; your youngest only five days old. You are competent at obstetrics and will deliver over 1000 babies in your career. There will be many a memory in the delivery room, but none will mean more to you than when you see your own son being born. When you see the birth of Harrison, on the same date as your late father's birthday, you know there is a God and you know you were called to be a dad. You only get one chance for him, Sophs, and Lincoln. *Always be present and try to do your best.*

Lastly, your peers will experience burnout and frustration whether they are independent, employed, urban, rural, primary care or specialist, Republican or Democrat. Patients don't check in as Republicans or Democrats, and neither will we when entering the exam room or surgical suite. You will deal with insurance companies, attorneys, new technology like electronic health records, prior authorizations, non-compliance, no-shows, big pharma, and large health systems - some that will employ docs and try to eliminate their autonomy or own the MD behind their name. You will marvel that meds will reduce cholesterol build up in arteries and almost put heart surgeons out of business, the entire human genome will be coded, men will ask you for a little blue pill, and robots will do surgery. We will have office visits with patients on home televisions, cell phones, and computers. You will learn about the effects of cancer screening, new cancer treatments for all ages, the opioid crisis, new viruses like Zika and Ebola, internet addiction, and sex trafficking. Through all of these challenges, changes, celebrations, and opportunities, remember why you went to medical school: to make a difference. And so far you and your colleagues have done that. Rob - keep up the faith. Your journey is not over. IT HAS BEEN WORTH EVERY SECOND, MINUTE, HOUR, and DAY! □

Executive Vice President's Message

by Dale Mahlman
NMA Executive Vice President

This issue of the NMA Advocate focuses on cancer screening. There is a line in Brad Paisley's "This is Country Music" song that says "You're not supposed to use the word cancer in a song." Fortunately, that only applies to music as Nebraska has been fortunate over the years to have interested groups including, but not limited to, the Nebraska Medical Association, American Cancer Society, Nebraska Cancer Coalition, Susan G. Komen, et al., that continue to educate and raise public awareness. We hope this issue will help educate our membership on current screening recommendations.

Along with our partners, we have been lucky to have advocates at the Legislature, state government, and public health representatives, raising awareness at the local level. Creating the Nebraska Clean Indoor Air Act in 2007 was a multi-year and multi-city issue. In January 2005 when the city of Lincoln first passed legislation making bars and restaurants smoke free, I remember eating lunch in Omaha and still being asked if I wanted to sit in the smoking or non-smoking section. Lincoln's two-year head start was a great test and thankfully, with then Senator Joel T. Johnson, MD, in the lead, the Legislature passed legislation extending smoke-free benefits to the entire state. Dr. Johnson always said that this one piece of legislation will save and benefit more people than he did in his distinguished medical career.

The Nebraska Medical Association has had an active Section on Men's Health since our current president, Rob Rhodes, MD, suggested the idea in 2005. Later that year we held our first "Men's Health Game Night" focusing on general men's health concerns including prostate cancer and the available screening tools. In April 2009, we held a joint program of the Section on Men's Health and Section on Women's Health, (led by Dr. Rhodes and Dr. Sarah Cada) that included both men's and women's issues with cancer prevention being front and center.

In 2007, together with DHHS' Office of Women's and Men's Health, the American Cancer Society and Husker Sports Network, the Nebraska Medical Association was a partner in the "Stay in the Game" colon cancer screening project. With the leadership of NMA Past President Al Thorson, MD, and a generous grant from the CDC and DHHS, this statewide program raised colon cancer awareness and the importance of regular screenings. Husker Sports remains a great partner on this issue with others joining ongoing effort.

More recently, the Nebraska Cancer Coalition (NC2) has tackled the adverse effects of indoor tanning and was instrumental in the development and passage of legislation requiring parental permission for tanning by a person under the age of 18. With the leadership of Dr. Thorson and David Watts, MD, NC2 has addressed the indoor tanning issue along with other cancer-related conditions. Their coalition of stakeholders works tirelessly to reduce the incidence of cancer statewide.

Lastly, we'd like to recognize our members who recognize and treat cancer in patients young and old. Your efforts in treating this devastating disease change the lives of those diagnosed and their families.

Enjoy this issue of the NMA Advocate; the Nebraska Medical Association continues to "Advocate for Physicians and the Health of all Nebraskans." Raising cancer screening awareness is our next step in that effort. □

Cancer Prevention and Early Detection... Weapons Used Too Infrequently

By Alan G. Thorson, MD, FACS, FASCRS
Clinical Professor of Surgery
Creighton University School of Medicine
University of Nebraska College of Medicine

Cancer remains the second leading cause of death in the United States with an expected 600,920 deaths in 2017. This includes an estimated 3,520 cancer deaths in Nebraska.[1] Only heart disease, with an estimated 610,000 deaths per year, surpasses cancer (barely) as a cause of death.[2]

Tobacco products remain the single largest cause of cancer in the United States. In 2017 it is estimated that 190,500 of the projected 600,920 United States cancer deaths (31.7%) will be attributed to cigarette smoking alone.[3] For the 13 common cancers,* about 29 percent of cases in the U.S. are preventable through a healthy diet, being physically active, and maintaining a healthy weight.[4] When combined with those cancers resulting from smoking, and by adding appropriate cancer screenings, up to 50 percent of all cancers are potentially preventable if we only applied what we already know about cancer risk and prevention.

We know that primary measures for cancer prevention include the avoidance of tobacco products, eating a healthy diet, staying physically active, maintaining lean body weight, limiting alcoholic beverages, and getting screened and vaccinated (hepatitis B, HPV). These same behaviors are also linked with a lower risk of developing heart disease and diabetes. While all of these preventive measures are important, this issue of the NMA Advocate focuses on cancer screening: the appropriate exams and their timing and techniques to utilize in maximizing patient participation in such screenings. While science has brought us ever better screening and prevention methodologies (e.g. spiral CT scans, fecal immunohistochemistry and stool DNA and HPV vaccination) it is now up to us to find a way to bring our patients to the science. That seems to be the harder part of the equation to success.

The primary impetus for this issue of the NMA Advocate is the "80 percent by 2018" campaign for enhanced colorectal cancer screening whose goal is to have 80 percent of the eligible United States population (aged 50 and over) regularly screened for colorectal cancer by the end of 2018. If we can achieve 80 percent by 2018, 277,000 cases and 203,000 colorectal cancer deaths would be prevented by 2030.[5] The 80 percent by 2018 initiative is led by the American Cancer Society, the Centers for Disease Control and Prevention, and the National Colorectal Cancer Roundtable. More than 1,000 groups have embraced this goal and pledged to work together to increase the nation's colorectal cancer screening rates.

The current overall colorectal cancer screening rate (most recent data available from 2015) is 67.6 percent. Among the states, Nebraska ranks 37th in screening with 65 percent of those over age 50 screened.[6] As you will see in the accompanying articles, the screening rate for our Medicare population is worse. While establishing strategy to accomplish the goal of 80 by 2018, it was apparent the volume of material needing coverage in routine office visits makes screening discussions difficult. We are not dealing only with colorectal cancer when it comes to recommended screenings. It becomes necessary to be familiar with all of the tests and recommendations. Keeping patients current can be difficult. The purpose of this edition is to simplify both: summarize current recommended screening tests and provide suggestions and helpful hints to most efficiently get the tests done.

The authors contributing to this edition are experts in their field and well versed on the paths we can take to help our patients minimize their risk of developing cancer through primary prevention and early detection measures that can maximize survival if cancer strikes. This is a great opportunity to review current screening guidelines and adopt measures you can take to assure that your patients take advantage of the current science. □

* *Head and neck cancer, esophagus, lung, stomach, pancreas, gallbladder, liver, colorectal, breast, ovary, endometrium, prostate, and kidney*

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The NMA would like to thank and acknowledge Dr. Thorson for his assistance with this issue of the NMA Advocate.

The Role of Primary and Secondary Cancer Prevention in Achieving the Goal of Nebraska as the Healthiest State

By Evi Farazi, PhD
Assistant Professor, Department of Epidemiology, College of Public Health, University of Nebraska Medical Center

It is estimated that there will be 9,488 new cancer cases and 3,500 cancer deaths in 2017 in Nebraska.[1] The age-adjusted incidence rate of cancer in Nebraska in 2014 was 444.9 cases per 100,000 people with lung, breast, prostate, colon, and rectum cancers accounting for nearly 50 percent of all cancers in the state.[2] Overall, the age-adjusted cancer incidence rate in Nebraska for 2010-2014 (454.4 per 100,000) was comparable to the U.S. rate for 2009-2013 (461.9 per 100,000). The age-adjusted mortality rate in Nebraska for 2010-2014 (162.6) was also quite similar to the U.S. rate for 2009-2013 (168.9 per 100,000).[2] Disparities in cancer incidence and mortality have been reported with African-Americans showing significantly higher overall incidence and mortality rates compared to whites.[3] Thus, to achieve the goal of Nebraska as the healthiest state, the cancer incidence and mortality rates and associated disparities in the state need to be reduced considerably through primary and secondary prevention.

Scientific efforts over the years have provided the means to prevent and screen for certain cancers, such as breast cancer, colorectal cancer, lung cancer, melanoma of the skin, and uterine cervix. Screening for prostate cancer is also available, however, due to the many controversies surrounding the subject it will not be discussed in this brief article. The current screening recommendations of the U.S. Preventive Services Task Force (USPSTF) for colorectal, breast, cervical, and lung cancer are summarized in Table 1 (below). Colon cancer can be tackled through secondary prevention. In 2014, only 64.1 percent of adults 50-75 years old in Nebraska reported adhering to the colon cancer screening guidelines.[4] This is below the National Colorectal Cancer Roundtable's "80 percent by 2018" for colon cancer screening initiative.

Breast cancer mortality can be also reduced through mammography screening to detect breast cancer early. In 2014, 76.1 percent of Nebraska women within the screening age range reported adhering to the breast cancer screening guidelines.[4] Primary and secondary prevention methods exist for cervical cancer as well. Since almost all cervical cancers are associated with HPV infection, primary prevention can be achieved with use of the HPV vaccine. In Nebraska, 59.6 percent of 13-17 year old females had received at least one HPV vaccination in 2014, while only

TABLE 1. Screening Guidelines According to the U.S. Preventive Services Task Force (USPSTF)

	Screening Guidelines
Colorectal cancer (50-75 years old)	• Fecal occult blood test (FOBT) every year or • Sigmoidoscopy every 5 years in combination with FOBT every 3 years or • Colonoscopy every 10 years
Breast cancer (50-74 years old)	• Mammography every 2 years
Cervical cancer (30-65 years old)	• Pap test every 3 years or • Pap test combined with HPV test every 5 years
Cervical cancer (21-29 years old)	• Pap test every 3 years
Lung cancer (55-80 years old with a 30 pack-year smoking history)	• Low-dose computed tomography every year

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The Role of Primary and Secondary Cancer Prevention in Achieving the Goal of Nebraska as the Healthiest State (continued)

39.5 percent of boys the same age received the vaccine.[4] Cervical cancer can also be prevented through secondary means such as Pap test and HPV test. In Nebraska, 81.7 percent of women reported being adherent to the cervical cancer screening guidelines in 2014.[4]

A great proportion of lung cancers can be prevented by avoiding tobacco use. In 2014, 17.3 percent of adults in Nebraska 18 years and older reported smoking cigarettes compared to 18.1 percent of adults nationally. Unfortunately, 13.3 percent of public high school students in 2015 reported smoking cigarettes at least once in the past 30 days. Even more worrisome is that in 2015 38.2 percent of Nebraska high school students reported using electronic vapor products.[4] For those already smoking, secondary prevention means include screening using low-dose computed tomography (LDCT).[5] Even though no data exists for LDCT screening in Nebraska, according to a recent report using the 2015 National Health Interview Survey only 3.9 percent of eligible smokers received LDCT in the U.S. in 2015.[6]

Melanoma of the skin is another preventable cancer through primary and secondary prevention. Primary prevention involves adaptation of behaviors leading to avoidance of sun and artificial light (e.g. tanning beds) exposure and secondary behavior involves screening the skin for abnormal moles. According to the Association of American Medical Colleges, there were 53,757 people per dermatologist in Nebraska in 2014, which is well below the number for other states such as New York, which has 19,628 people per dermatologist.[7] The sparse representation of dermatologists in the state posits challenges for skin cancer screening.

Obesity has been associated with many types of cancers[8] and it is expected that leading a healthier lifestyle, which includes healthier diet, would result in reduction of the burden of cancer. The fraction of obese adults (BMI greater than 30) in Nebraska was 30.2 percent in 2014 which is an increase compared to 26 percent in 2005. In 2013, 28.5 percent of Nebraska adults reported consuming sugar-sweetened beverages at least once per day in the past month. In 2015, 59 percent of high school students reported drinking sugar-sweetened beverages at least one time per day during the past seven days. Another aspect of unhealthy lifestyle linked to cancer is physical inactivity.[9] Only 18.8 percent of Nebraska adults met the physical activity recommendations in 2013. In 2015, 52.8 percent of Nebraska high school students reported engaging in at least 60 minutes of physical activity on five or more days during the past seven days.[4]

A lot of work remains to be done to improve primary and secondary cancer prevention in Nebraska. Efforts should be made to achieve behavioral changes related to unhealthy eating and physical inactivity in order to reduce obesity. As evidenced by the high number of high school students with unhealthy lifestyles, education on adapting healthy lifestyle behaviors should start early in life. This includes education on avoiding tobacco smoking and sun/artificial light exposure. In addition, other primary cancer prevention methods, such as HPV vaccination, should be promoted through parental education to achieve higher vaccination rates. Efforts should also be directed at increasing cancer screening for breast, colorectal, and lung cancer such that these cancers can be detected at a stage when they are amenable to treatment. Physicians play an important role in increasing screening uptake by having conversations with their patients during regular checkups and recommending appropriate screening. *Research has shown that physician counseling increases patients' perception of colorectal cancer susceptibility and screening behavior.*[10, 11] Furthermore, many interventions have been developed for physicians to receive the most current evidence-based information regarding screening recommendations and tutorials on how to most effectively communicate such information to their patients.

This is not the job of one person or organization - it will require collaboration among various institutions within the state that have the same purpose: to reduce the cancer burden. A multi-disciplinary team of individuals is required to achieve significant changes in cancer prevention. Along these lines the Nebraska Cancer Coalition (NC2), a statewide partnership of over 300 individuals from 200 public and private organizations in the state, was created and is expected to aid in improving cancer prevention through

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Cancer Screening in Women's Health

By Sarah Cada, MD
Chair, NMA Section on Women's Health

A challenge in medicine is adapting our practice to changes in guidelines. This is true especially when guidelines vary amongst different organizations. As medicine and our base of knowledge expands, practitioners need to evolve our practice as well. This article will address screening for cancer in women's health, including changes in cervical cancer guidelines and the developing field of genetic testing and its implications.

Cervical cancer is the most common cancer of the gynecologic system. It was first noted over a 100 years ago that cervical cancer was more common in married women than in virgins and nuns. With the invention of the Pap smear in the 1940s and then the field of cytology, an association between Human Papilloma Virus (HPV) and cervical cancer was identified. Fast forward to today where the focus has moved from secondary prevention with routine pap smears to primary prevention with the HPV vaccine.

For gynecologists and others involved in the routine care of women there is some challenge with maintaining the importance of annual exam for cancer screening with changing guidelines for pap smear. In 2012 the American Society for Colposcopy and Cervical Pathology (ASCCP) updated the guidelines for cervical cancer screening. Current guidelines embrace the association of HPV with cervical cancer and are meant to decrease invasive procedures and testing, allowing HPV changes of the cervix a chance to be subdued by a patient's immune system. Paps are to begin at age 21. In the case of a normal pap, women in their 20s may do a pap every three years. In women age 30-65 years with the addition of HPV testing, a negative pap and HPV test will allow those two tests to be performed every five years. An alternative embraced by the U.S. Preventative Services Task Force (USPSTF) is to perform HPV testing alone every five years in women 30-65 years.

The tradeoff of less frequent testing is a doubling of the incidence of cervical cancer (Kinney et al., Increased Incidence of Cervical Cancer). Another risk is that less women will present for annual physicals allowing interventions such as HPV vaccine and genetic counselling for hereditary cancers and diseases.

HPV vaccination is recommended for girls and boys age 9-26 years. Guidelines call for two shots six months apart. Only 41 percent of girls and 28 percent of boys currently receive the vaccine. There are three vaccines available in the U.S. The 9 valent vaccine is the most recent on the market and decreases HPV related disease by the affected HPV genotypes by 90-99 percent. HPV is associated with vulvar, vaginal, cervical, penile, anal, and oropharyngeal cancer and genital warts.

Breast cancer is the most common cancer diagnosed in women. The American College of Obstetricians and Gynecologists (ACOG) recommends mammograms annually or biennially at 40 years of age in average risk women. Factors such as family history of breast cancer, obesity and nulliparity would increase a woman's risk of breast cancer above average. In 2016, the USPSTF drew attention when they recommended beginning mammograms at age 50. However, they did say that the decision could be made to start at 40 with counselling. Negative consequences of screening mammograms include anxiety related to false positive results, discomfort with procedures, and over diagnosis. The false positive rate of annual mammograms may be as high as 61 percent and biennial exams 42 percent. Clinical breast exam should begin at 25 years. Self-breast exam is no longer recommended, but self-breast awareness should occur. Breast awareness means letting a practitioner know if changes are noted in a woman's breasts, but not doing routine self-exam. In women under 50, 71 percent of breast cancers are found by the patient. In women over 50 half of breast cancers are found by the patient. However, for monthly routine self-exam there is no evidence showing benefit, partly because of the large number of false positives.

Some people have an inherited susceptibility to cancer. In those families often multiple family members

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Cancer Screening in Women's Health (continued)

will be identified with cancer. Examples of genetic cancer syndromes are hereditary breast and ovarian cancer syndrome related to the BRCA 1 and or 2 gene and Lynch syndrome.

Hereditary cancer syndromes can be screened for by gathering a detailed family history. Patients that fit a pattern of hereditary cancer can be offered genetic testing. There are online risk models practitioners can access to help identify patients in need of gene testing. An example is Tyrer Cuzick available at www.ems-trials.org/riskevaluator/. Up to 24 percent of epithelial ovarian cancer and 4.5 percent of breast cancer are due to mutations in BRCA1 and BRCA2. Women with one of these gene mutations have up to an 85 percent risk of breast cancer by age 70. An average risk woman has a 12 percent risk of breast cancer. The risk of ovarian cancer in women with a BRCA mutation is 46 percent by age 70. In the general population the lifetime risk of ovarian cancer is 1.4 percent. With this knowledge it makes sense for providers to adapt a strategy to screen and monitor women at risk for hereditary cancer syndromes.

Colon cancer is one of the most common cancers in the U.S. and one of the most preventable. In average risk, asymptomatic women screening should begin at age 50. ACOG recommended options for screening include colonoscopy every 10 years, fecal occult blood testing yearly using multiple samples, or every five years to do either a flexible sigmoidoscopy, barium enema, or CT colonography. In the general population the lifetime risk of colon cancer is 5.5 percent. In women with Lynch Syndrome the risk of colon cancer is 80 percent with average age of onset 44 years. Since most colon cancer is initially asymptomatic, practitioners can make a huge difference in the lives of patients and their families by screening for hereditary cancer syndromes. Once those patients are identified they can begin earlier and or more intensive cancer surveillance. If practitioners don't have the resources to evaluate and monitor these patients, they need to have a plan in place to get those patients the assistance they need.

NMA members need to familiarize themselves with current screening guidelines for cancer. This includes collecting a detailed family history for cancer in family members. Practitioners need a system in place to offer testing and monitor the increased follow up recommended for patients at high risk of cancer. If they choose not to do the genetic counselling, they need a referral source who will.

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Breast Cancer Screening: Increasingly Individualized and Complex Decisions

By Kim Coleman, MD
NMA Board Member

Mammography was developed in the 1960s and officially recommended by the American Cancer Society in 1976.[1] In recent years, the topic has become increasingly complicated. Professional societies have similar, but now mildly divergent recommendations for screening mammograms. Advanced screening tools have been developed bringing improved accuracy at additional cost. The medical community needs to identify the patient population most likely to benefit, those women at high risk for breast cancer. It's our task to tailor breast cancer screening for each individual patient.

SCREENING MAMMOGRAPHY: WHEN TO START, WHEN TO STOP

The American College of Radiology (ACR) recommends annual screening beginning at age 40 for women with average risk. The American Academy of Family Physicians (AAFP) bases its recommendation on the U.S. Preventive Services Task Force, which recommends biennial screening beginning at age 50. The American College of Obstetricians and Gynecologists (ACOG) recommend screening mammogram every 1-2 years beginning at age 40.

The ACR differs from the recommendation of the USPSTF in part because the recent study on which the USPSTF based its recommendations used a one-view mammogram for all follow-up studies, not the standard 2-view mammogram. In the same study only 41 percent of the women invited to screen actually obtained screening mammogram, which falsely lowered the statistical benefit of screening mammogram.

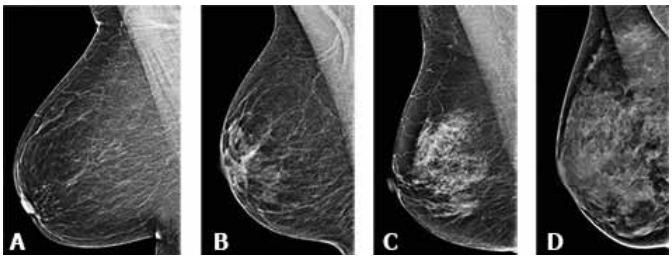
The ACR recommends an older women continue screening mammogram as long as she would choose to treat a detected cancer, most appropriate for women in generally good health with an estimated life expectancy of 5-10 years. The AAFP recommends continued screening through age 74; ACOG recommends screening until at least age 75.

The medical community is now also tasked with tailoring breast cancer screening to a woman's *personal decision regarding the benefits versus harms* of screening mammography. While I strongly support the idea of patient empowerment, it can be overwhelming for a woman to weigh all the medical evidence in light of her individual risk factors. Therefore, I offer my opinion as a woman at average risk for breast cancer and as a radiologist; I find the benefits of annual screening mammogram far outweigh the potential harm. Potential harms include additional testing, anxiety, and possible unnecessary biopsy. The radiation dose is low; therefore, radiation-associated risk is small.

DENSE BREASTS

Breast tissue can vary from almost entirely black on mammogram, referred to as *fatty*, to very white, referred to as *dense*. There are four categories used to describe density in mammogram reports, in order of most black to most white:

A) Almost entirely fatty
B) Scattered fibroglandular densities
C) Heterogeneously dense
D) Extremely dense



Breast Density Image, Breast Density Brochure, ACR, 2017.

Cancer shows up as white on mammogram, therefore, cancer is more likely to be missed in a patient with very dense tissue. Some studies also indicate breast density itself as an independent factor, which increases the risk of cancer.[2]

A new Nebraska law (signed under LB 195) now requires notifying any patient with heterogeneously dense or extremely dense breast tissue on mammogram, informing her of increased cancer risk and diminished sensitivity of

(continued on Page 12)

Breast Cancer Screening: Increasingly Individualized and Complex Decisions (continued)

her mammogram. This is the suggested wording for patient notification letters:

Your mammogram indicates that you have dense breast tissue. Dense breast tissue is a normal finding that is present in about 40 percent of women. Dense breast tissue can make it more difficult to detect cancer on a mammogram and may be associated with a slightly increased risk for breast cancer.

This information is provided to raise your awareness of the impact of breast density on cancer detection and to encourage you to discuss this issue, as well as other breast cancer risk factors, with your health care provider as you decide together which screening options may be right for you.

You can view a webinar on this topic on the NMA's website, www.nebmed.org. (https://www.nebmed.org/resources/continuing-medical-education/events).

Patients with dense breasts need reassurance that dense tissue is normal and they also need guidance on the next steps. What additional tools are available to better evaluate dense breast tissue? The most widely available and affordable advanced imaging modality is digital breast tomosynthesis (DBT), which is also referred to as *3D mammogram*. DBT is still a mammogram and patients will be compressed in a similar manner. But DBT is a more sensitive mammogram, allowing radiologists to evaluate the breast in thin, 1mm intervals. This decreases false negative exams, making it less likely that normal tissue will hide cancer, while simultaneously decreasing false positives exams. Early studies indicate benefit to women in all breast density categories.[3] DBT is now covered by Medicare and most insurance companies and is increasingly available across Nebraska.

Breast ultrasound is an excellent supplemental tool for a targeted breast concern, specifically a palpable lesion or to further evaluate an abnormality on mammography. As advancements in breast ultrasound evolve, this may become a more optimal screening tool but ultrasound is not recommended strictly as a screening exam at this time.

Breast MRI is highly sensitive for detecting cancer. Breast MRI is also an expensive exam and can result in false positive findings. Most insurance companies cover breast MRI as a diagnostic exam when an abnormality is detected on mammography or ultrasound. MRI is increasingly utilized for screening in women with dense breast who have additional significant risk factors.

HIGH RISK PATIENTS

For all women, whether mammographically dense or not, a discussion about breast cancer risk in general is warranted. The majority of newly diagnosed breast cancers are in women with *no* family history and *no* identifiable high-risk factors.

For a woman without a personal history of cancer, risk factors for developing cancer include family history of breast and ovarian cancer[4] particularly in younger, premenopausal family members, demographic and lifestyle factors, reproductive history, prior chest radiation therapy, and history of breast biopsy.

The utilization of specific breast cancer risk assessment tools can aid in identifying women at high risk. The International Breast Cancer Intervention Study (IBIS model) also referred to as the *Tyrer-Cuzick model* (http://ibis.ikonopedia.com) is a screening tool which estimates a woman's risk of developing breast cancer, both over her lifetime and within the next 10 years. This tool can assist the clinician and patient in decisions regarding genetic screening as well as advanced imaging. For example, *in patients whose calculated lifetime risk for developing breast cancer is greater than 20 percent, annual screening breast MRI is recommended.*

The world of breast cancer screening has evolved, resulting in improved cancer detection, and also an increased challenge to address the needs of each individual patient. As health care providers, we need to give women direction and *clarity* as they navigate this increasingly complex issue. □

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Lung Cancer Screening

By Richard Kutilek, MD, FACR
Diagnostic Radiologist
Radiologic Center, Inc.
Nebraska Methodist Hospital

The primary impetus for this issue of the NMA Advocate is to promote the Nebraska Cancer Plan by increasing access to safe, responsible screening. This includes increasing the number of lung cancer screening programs that comply with best practice.

Low dose CT screening for lung cancer is arguably the least utilized lifesaving cancer screening available. According to the American Cancer Society (ACS), only 3.9 percent of the patients eligible for lung cancer screening underwent low dose CT scanning in 2015. The National Lung Screening Trial demonstrated a 20 percent reduction in mortality from low dose CT screening and in 2015 CMS approved coverage for lung cancer screening.

TABLE 1

Eligibility Criteria for Low Dose CT Lung Cancer Screening	
Age	55-77
Pack Years Smoking	>30
Current Smoker (or)	Yes
Quit within last 15 years	Yes
Symptoms of lung cancer	None
Shared decision making with PCP	Yes

Eligibility requirements for low dose CT lung cancer screening are as follows: age 55 to 77, over 30 pack years of smoking, current smoker or quit within the last 15 years, no symptoms of lung cancer and a shared decision making visit with PCP prior to screening (Table 1). There are five Centers of Excellence for Lung Cancer Screening in Nebraska which include Mary Lanning in Hastings, CHI Good Samaritan in Kearney, Bryan in Lincoln, and Nebraska Medicine and Methodist in Omaha. Eligible patients undergo annual low-dose, non-contrast screening CT scans which are performed at 1.25 mm sections or less. The scan takes less than 10 seconds to perform, and the radiation dose to the patient is eight times less than a conventional CT.

Methodist began a low dose CT lung cancer screening program in 2006 after partnering with the Early Lung Cancer Action Program and has screened 1,322 patients resulting in 4,942 scans through 2016. Over 70 percent of the scans are "positive" as one or more nodules are detected due to the prevalence of histoplasmosis in our area. There have been 615 follow up scans resulting in 100 biopsies and 52 diagnosed lung cancers. Sixty-seven percent of the lung cancers diagnosed at Methodist were classified as Stage 1. According to SEER DATA from the NCI in 2016, only 16 percent of patients are Stage 1 at the time of diagnosis.

My institution has an outstanding team dedicated to the detection and treatment of lung cancer. We also have a dedicated lung cancer clinic with a team that manages all the patients that come to the clinic. The team includes a dedicated lung screening coordinator who schedules and tracks patients, communicates results with the PCP and patient, navigates the patient, and collects data. A coordinator is an essential team member that is a must for a successful lung screening program. Methodist has a weekly lung cancer conference where all specialties are represented including pulmonology, cardiothoracic surgery, oncology, radiation oncology, pathology, radiology, and interventional radiology. Lung cancer patients are presented as well as lung screening patients that have abnormal findings and a treatment or a procedural plan is formalized. □

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Prevention and Early Detection of Head and Neck Cancers

By William Lydiatt, MD, EMBA
Chair-Elect Department of Surgery
Methodist Estabrook Cancer Center

Head and neck cancer (HNC) includes malignancies that arise in the mucous membranes of the oral cavity, pharynx, larynx, paranasal sinuses, skin, thyroid, and salivary gland. Nearly 200,000 cancers in the head and neck region were expected to occur in the U.S. in 2017 according to National Cancer Institute's (NCI's) Surveillance, Epidemiology, and End Results (SEER) Program. Primary care providers have an important role to play in prevention and early detection of these tumors. Cancers of the mucous membranes are highly correlated with tobacco and alcohol use. In fact, the combination of alcohol and tobacco works synergistically to dramatically increase the risk of development of cancer. Over the past 20 years a new cancer has emerged. There has been an increase of 4 percent per year in the incidence of cancers arising in the palatine and lingual tonsils. These cancers are associated with prior infections with high risk human papilloma virus (HPV). This has very important implications for practitioners and public policy.

Prevention:

As Dr. Thorson indicated, smoking cigarettes is a major risk for many cancers including HNC. Convincing young people to avoid smoking is critical since 90 percent of tobacco abusers start by age 18. E-cigarettes do not carry the same carcinogenic risk; however, they may well serve as a gateway to smoking and therefore are to be strongly discouraged. Alcohol works synergistically with tobacco to magnify this risk to up to 40 times the baseline risk, especially in cancers of the oral cavity, pharynx, and esophagus. Chewing tobacco is a specific risk for oral cavity cancer and also increases the risk.

HPV infection is very common in the United States with up to 80 percent of males and 75 percent of females contracting the virus at some point in their life. Ten to 20 percent of these infections are of cancer-causing subtypes (16, 18, 31, 33, 35, 45, 51, 52, 56, 58, 59, and 68). Safe sex practices such as abstinence and barrier protection are highly recommended to decrease the subsequent risk of oropharyngeal cancer.

HPV vaccination is effective in both males and females and is strongly recommended to decrease the risk of infection and subsequent malignant transformation. Three vaccines are available in the United States: Gardasil, Gardasil-9, and Cervarix. They are recommended for both girls and boys and are ideally administered prior to sexual activity. These vaccinations typically are not recommended after age 26 as the risk of infection has typically peaked. Side effects tend to be mild and include pain, redness and swelling at the injection site, fever, headache, fatigue, or fainting. Serious side effects are extremely rare in extensive testing from trials of over 75,000 subjects.

Head and neck skin cancers are associated with sun exposure and well known techniques to avoid sun burn such as barrier (wide brimmed hats, avoiding sun during peak hours, sun block, etc.) should always be advocated.

There is no known prevention strategy for thyroid or salivary gland cancers so detection is the best source of control.

Early Detection:

The typical patient that develops an HPV- associated cancer is male (2:1), 50 years old, and often with no or limited tobacco exposure. There is some correlation with marijuana and HPV associated cancers. HPV associated tonsil cancers are often not associated with symptoms although patients may complain of a unilateral sore throat, change in voice to a more muffled quality, or a neck swelling or mass in the upper jugular nodal region. The common presenting physical findings for tonsil cancer are a nontender neck mass, an asymmetric tonsil or a "hot potato" voice. These cancers are found in people as young as 18, peaking at age 50, but can be seen at any age.

Thyroid cancers (TC) present as a painless mass low in the mid neck and typically manifest as a firm to hard

(continued on Page 15)

Prevention and Early Detection of Head and Neck Cancers (continued)

mass that moves with swallowing, hoarseness of voice or as an enlarged nodal mass. TC also frequently presents as a painless, asymptomatic mass detected by the patient or physician or as an incidental finding during other tests. Young boys and girls are equally affected but after puberty, women have three times the incidence of TC. It peaks between ages 45-54 years, but like tonsil and salivary gland cancer (SGC) thyroid cancer can present at any age.

SGC typically presents as a firm lump in front of or below the ear. All patients with facial nerve paralysis should have a careful physical examination or imaging to rule this out as a cause.

The natural history of all three of these cancers is to stay in the local and regional area. There is no screening test other than physically feeling the neck for lymphadenopathy, the parotid, and thyroid gland for a mass and looking at the tonsils for asymmetry. In fact, screening for TC is not recommended except as part of general health maintenance.

Treatment is typically highly effective for HPV-associated HNC. Surgery and radiation therapy are the two curative forms of treatment. The addition of chemotherapy to radiation may enhance cure in specific circumstances. The goal of therapy is to cure the cancer with the least amount of short, intermediate, and long-term side effects. Because the cure rates tend to be high, many patients will be alive 10 or more years after treatment. Therefore, the very long-term consequences of treatment must be taken into account.

HPV-associated cancers of the oropharynx behave differently than the more common tobacco associated cancers of the head and neck. Using the current staging system, most patients are diagnosed with stage IV disease however they have a 90 percent cure rate. Because this was incongruent with HNC staging, a new system was required. This was recently published in the 8th Edition AJCC Cancer Staging Manual and will be implemented in January 2018. The new system substantially decreases the number of people with stage IV disease and should provide better prediction of cancer control.

TC is managed by surgery to remove the affected thyroid gland and any affected lymph nodes. Subsequent use of radioactive iodine is utilized in specific circumstances. Prognosis is very good, but long-term follow up is important.

SGC is also treated with surgery but radiation and chemotherapy may be employed when the cancer has high-risk features. Cure rates tend to depend largely on the stage and the histological type of cancer.

HNC is an increasingly common disease that primary care providers will encounter. They will play a pivotal role in prevention as they are the front line on tobacco and alcohol abuse, HPV vaccination, and early detection of disease once it has become manifest. □

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Men's Health is Better Because of...ED

By Robert B. Rhodes, MD, FAAFP
President, Nebraska Medical Association

I have the opportunity to sit on the Advisory Committee for the Men's Health Network in Washington, DC. Recently, on one of our calls, I was asked: what was the ONE major development in men's health that has changed in my 20 year career? I thought about the benefits of statins like Lipitor, WebMD/Google, Cologuard DNA testing for colon cancer, low dose lung CT for smokers, Gardisil for HPV reduction for oral and genital pathology, better outcomes for testicular cancer patients, and other life changing treatments. Then I said: "Viagra"... it brought a couple chuckles. Second place is preventative/ wellness exams coverage, and third is Direct to Consumer (DTC) advertising. Let me explain how each are related and important to men's health and cancer prevention.

Since Viagra and other prescriptions like it, physicians get the opportunity to see male patients that previously maybe didn't come to the doctor unless they had been scheduled for the appointment by their wife or significant other. It took persistent pain, something green and about ready to fall off, or a part of their body that didn't work like it formerly did, to get men into our offices. Preventative health exams and wellness visits that are now covered by their insurance have also increased visits. Even if it is just once a year, it has uncovered many issues. Heart disease, depression, diabetes, cancer, and hypertension have all been diagnosed during a routine "ED" visit. And men found that the doctor's office isn't as intimidating as they had once imagined, and that we don't greet them with a gloved finger and wait for the Fletch "Moon River" comment. The gowns still don't fit well, but at least it is easier to see them in a year.

As frustrating as it is to have a patient bring in an ad or ask "I wonder if Nexium is right for me," DTC is another way patients find the courage or fear to come in. They see an ad on TV or in print and get on our schedule. I also tease patients that they come see me for a second opinion... after they visit "Dr. Google." But like it or not, these means are also reasons that patients choose not to go to the office but try home remedies and OTC treatments to save money with high deductibles, thus waiting too long and coming into the ER or office much sicker than if they sought us out earlier.

Regarding the subject of cancer screening, one thing that has seen much controversy and many changes is prostate cancer screening and the debate amongst societies. In my training in the mid 1990s, we were taught to start PSA and digital rectal exams (DRE) at age 40. Depending on the alphabet soup of recommendations (USPTF, ACS, IOM, AUA), you will see varying opinions. Do you start to screen at age 50 or 55? Is there a family history of prostate cancer? Do you do a DRE at all? What if the PSA doubles? If you look at some of the European studies, they look at survival benefit and in one study, if you are over 60 and your PSA is less than 2.0, they don't do another PSA or DRE in the patient's life. That is also very controversial and may be getting less support.

One of my mentors and current Lincoln urological colleagues, Drew Lepinski, MD, shared his thoughts. He urges starting with a PSA and DRE at 50, younger if black and/or a positive family history. No need to order a free PSA, but if you are concerned about the PSA rising or having velocity or doubling, recheck another one in 4-6 months. As Drew shared, "we don't know why PSA levels rise and fall. But we don't want to ignore them. Prostate cancer is the second leading cause of death in men, right behind lung cancer. And since PSA blood tests have been readily available, prostate cancer has been on a steady decline. The bigger question is when to quit doing PSA and DRE on patients: 75-85? If there is a potential less than 10 year survival, that seems reasonable."

We also talked about the huge swing in testicular cancer survival rates. Prior to the 1970-80s, testicular cancer had a 5-10 percent survival rate and now it is approaching 99 percent. We discussed that we need to remind our younger patients between ages 15-45 to do regular self-testicular exams. These should not be delayed, be consistent, and not ignore a lump (majority are painless). I personally talk to young male patients about it at the seventh grade well child or sports exam and even use a rubber model of what a testicular lump feels like. Drew added that "we need to coach these young men to do these exams routinely and not to be embarrassed about it."

In my career, I have seen the benefits of DTC, better coverage of wellness visits and yes, even Viagra and Cialis, get patients into the office. If they are there, we need to do our job and have a conversation about the best tests, imaging, and exams for their age group to help prevent, identify, and treat cancers in men. □

Skin Cancer and the Primary Care Physician

By David Watts, MD
President, Metro Omaha Medical Society
Past President, Nebraska Dermatology Society
Mohs surgeon in private practice

Skin cancer is by far the most common cancer in humans. New cases of non-melanoma skin cancers (NMSC) number in the millions in the United States every year, and the incidence is steadily rising. Malignant melanoma is much less common than NMSC. However, melanoma accounts for the vast majority of skin cancer deaths.

According to the American Cancer Society, melanoma ranks 5th in men and 7th in women among the top 10 cancers in the U.S. Like NMSC, melanoma incidence is climbing, even while the numbers of most other serious cancers have leveled off or decreased. The most recent 5-year CDC/NCI data suggest that melanoma incidence has grown much faster in Nebraska than in the nation as a whole. In fact, over that time period, melanoma appears to have been one of the fastest rising cancers in Nebraska.

Thankfully, with early detection, the mortality of melanoma has decreased. Still, on average, one American dies from melanoma every hour.

While NMSCs are rarely life-threatening, they can be disfiguring, and the majority of them appear on the head and neck. Melanoma, conversely, occurs most commonly on areas of the skin only intermittently exposed to intense ultraviolet (UV) radiation, most often the trunk and proximal extremities. The cancer may appear years or decades following exposure. Seventy percent of melanomas appear de novo, and 30 percent arise in a pre-existing mole.

The most common source of UV radiation for Nebraskans is the sun. However, indoor tanning beds expose users, mostly young women, to higher-intensity UV than is usually available during Nebraska summers. And indoor tanning is available all year long. Our dermatology practice has seen a sharp increase in both NMSC and melanoma in women under 40 compared to just a couple of decades ago.

Most skin cancers are more common in light-skinned, freckled individuals who burn more than they tan. As you would expect, people with a history of extensive outdoor activities, sunburns, or indoor tanning bed use are more likely to develop skin cancer. A dose-response relationship has been reported between the cumulative amount of indoor tanning and melanoma risk. People with a large numbers of moles, and those with a family history of skin cancer are likewise at increased risk.

A patient with a history of one NMSC has an approximately 40 percent risk of developing another NMSC in the ensuing five years. A patient with a history of melanoma is about nine times as likely as the average Caucasian with no melanoma history to get a second primary melanoma. Eastern Nebraska has an unusually high incidence of ocular melanoma as well.

The United States Preventative Services Task Force (USPSTF) is in the process of updating its recommendations for counseling patients on protection from UV exposure. Currently, the USPSTF recommends UV safety counseling for those under 24 years. The Surgeon General, American Cancer Society, American Academy of Pediatrics, and World Health Organization all endorse this recommendation.

In screening our patients for skin cancer, we encourage at least above-the-waist skin exams. A complete skin exam is even better. Most NMSCs present as a pink or pearly bump, a nearly flat pink well-defined shiny plaque, or a scar without injury history. Melanomas are usually irregularly-bordered, dark brown or multicolored, asymmetric pigmented lesions, but sometimes have minimal or no pigment. Nodular melanoma is a fast-growing subtype of melanoma that can invade deeply enough to metastasize as early as two months after initial presentation.

Most suspected skin cancers can be biopsied using a shave technique with a razor blade held gently in a bowlike shape. Since melanoma depth of invasion directly correlates with prognosis, the depth of the biopsy of a suspected melanoma must be *at least 1 millimeter* so if the deep margin of the tumor is transected, referral for sentinel node biopsy is clearly indicated. Early detection and treatment for melanoma can be curative. For expediency, primary care physicians are encouraged to perform skin biopsies of suspicious lesions.

Overall survival of patients with melanoma correlates with time elapsed prior to definitive treatment. Primary care physicians have a great opportunity to save lives through recognition of worrisome lesions and prompt biopsy and treatment. □

Getting to 80 Percent by 2018 at the Community Level: The Lincoln Physicians Cancer Screening Story

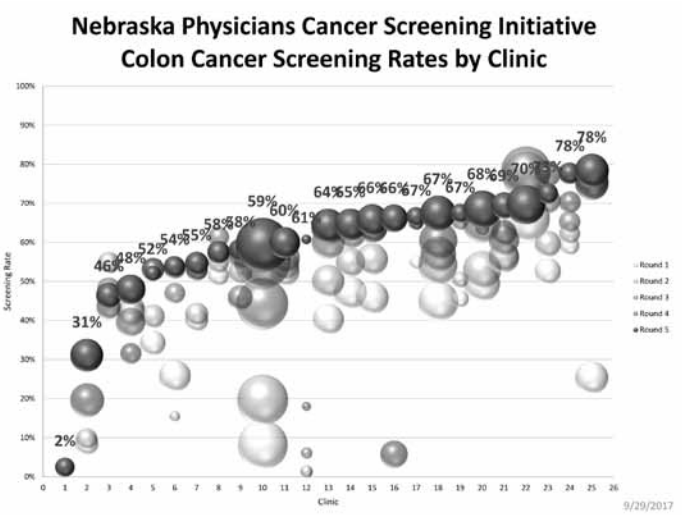
By Bob Rauner, MD, MPH, FAAFP

Two years ago for our annual Lancaster County Medical Society meeting we invited Ali Khan, MD, MPH, (dean of the University of Nebraska Medical Center College of Public Health) to come talk to our members about the state of Nebraska's health. During his talk he pointed out that one of Nebraska's health issues that needed to be addressed is the fact that while our state has a higher than average incidence of colon cancer, we have lower than average screening rates for colon cancer.

After hearing his support for the American Cancer Society's 80 percent by 2018 effort, several of us put our heads together to see if we could take this on for Lincoln and Lancaster County. Fellow physician board member Mike Rapp and I developed an effort we called the Lincoln Physicians Cancer Screening Initiative, applied for grant funding, and recruited local clinics to participate. Funding for the initiative came from BCBS of Nebraska, CHI Health St. Elizabeth, COPIC Medical Foundation, and the Nebraska Medical Association Foundation.

To encourage participation, we developed a CME accredited Part IV Maintenance of Board Certification curriculum that was offered to clinics for free if they participated. Additionally, we explained to clinics that the cancer screening measures included were the same measures they would be judged on by upcoming Accountable Care Organization (ACO) and Patient-Centered Medical Home (PCMH) contracts.

Over the last two years we have worked with more than 25 clinics from three different ACOs representing every physician network in Lincoln and Lancaster County. To be honest, at first I was not sure that 80 percent by 2018 was an achievable goal. When you add up the patients who refuse to be screened, shouldn't be screened, and can't afford to be screened, I was concerned that the total would be more than 20 percent, thus making it impossible to reach the 80 percent threshold. However, we currently have multiple Lincoln clinics with EHR extracted screening rates in the high 70s (see image below). These high achieving clinics are not unique to specialty, with clinics from the specialties of family medicine, internal medicine, and OB/GYN coming close to hitting the 80 percent target one year ahead of schedule!



The sales pitch for the effort incorporating Part IV Maintenance of Board Certification credit and explaining this as the first step toward quality improvement needed for ACOs, PCMHs and MIPS, was very successful and led to the inclusion of clinics beyond Lincoln and Lancaster County. Three UniNet clinics in Crete, Kearney, and Nebraska City also participated. Then in late 2016, we were asked by the Nebraska State Department of Health and Human Services to provide similar assistance to all seven of the states Federally Qualified Health Centers which is also now continuing into its second year.

The effort has resulted in two unanticipated spinoffs. The first spinoff is the creation of a similar pediatric initiative focusing on HPV vaccination to get Lincoln and Lancaster County to the Healthy People 2020 goal of 80 percent of Lincoln adolescents vaccinated for HPV by 2020. At this point all of Lincoln's pediatric clinics, our Federally Qualified Health Center, family medicine residency program, and

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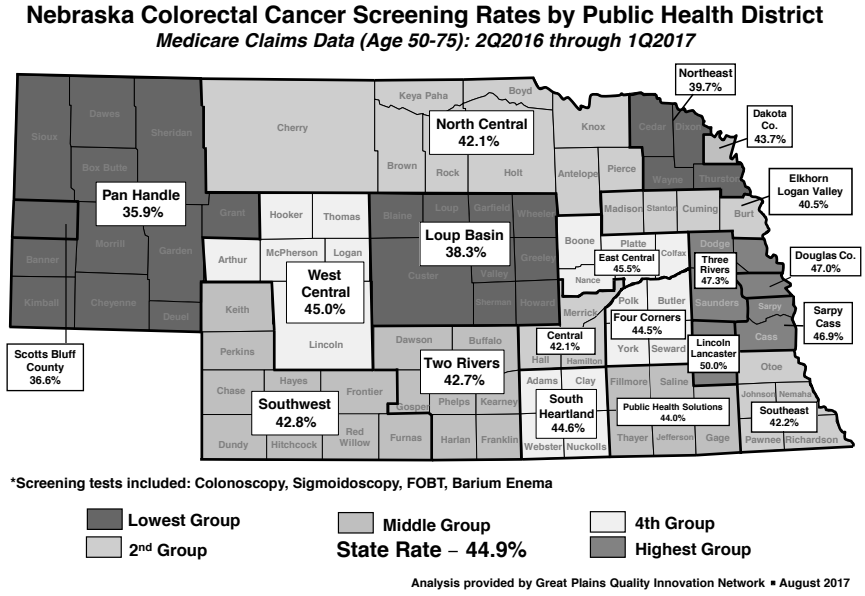
Getting to 80 Percent by 2018 at the Community Level: The Lincoln Physicians Cancer Screening Story (continued)

several additional family medicine clinics have joined the effort. The second spin off is that several of the independent primary care clinics from the OneHealth Nebraska IPA, based on their ability to successfully implement the project, decided they could then take the next leap to form an ACO. Three of the clinics formed OneHealth Nebraska ACO starting with a Medicare Shared Savings Program contract. They have now expanded to a primary care led ACO comprised of 15 clinics with multi-payer contracts.



The three largest Lincoln physician networks – Bryan Physician Network, One Health Nebraska, and The Physician Network continue to work together on the effort to make Lincoln and Lancaster County's screening rates the best in the state. Based on Medicare claims data analysis provided by Ted Fraser at Great Plains Quality Improvement, we already have! □

The Role of Primary and Secondary Cancer Prevention in Achieving the Goal of Nebraska as the Healthiest State (continued)

fostering collaborations. As Mother Theresa nicely put it: "I can do things you cannot, you can do things I cannot; together we can do great things."

Acknowledgements

I would like to thank Ali Khan, MD, dean of the College of Public Health at the University of Nebraska Medical Center, Tamara Robinson from the American Cancer Society, and Michelle Hood from the Nebraska Department of Health and Human Services for feedback and guidance on identifying information pertaining to this article. □

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2017 Annual Meeting Recap

Rob Rhodes, MD, of Lincoln is installed as 2017-18 president of the NMA by 2016-17 President Todd Pankratz, MD, of Hastings.

Rob Rhodes, MD, Installed as 2017-18 President of Nebraska Medical Association

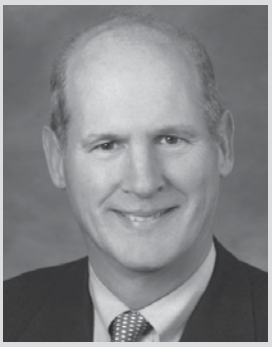
On Friday, September 15 Rob Rhodes, MD, of Lincoln was installed as 2017-18 president of the Nebraska Medical Association.

Dr. Rhodes is a practicing doctor, author, speaker, leader and entrepreneur, and is excited to be your Nebraska Medical Association president. He earned his medical degree from the University of South Dakota School of Medicine and completed his family practice residency with the Lincoln Medical Education Foundation/ UNMC. He is Board Certified with the American Board of Family Medicine and a Fellow of the American Academy of Family Practice.

Dr. Rhodes is an adjunct instructor at UNMC and a clinical associate professor at The University of South Dakota, Sanford School of Medicine. He has served on many local, state and national boards and currently he serves on the national board of the Men's Health Network and is Founder/President Emeritus of Clinic with a Heart.

Dr. Rhodes completed the Kauffman Foundation Pipeline Entrepreneur Fellowship in January of 2014 and also has served as Medical Director of Business Development/Innovation for The Physician Network. He has been featured on CNN, in Medical Economics and MONEY Magazine. In his spare time, Dr. Rhodes enjoys time with family, music, travel, golf and watching athletic events. □

Welcome New Board Members



Britt Thedinger, MD
(President-elect)
Omaha

Dan Rosenquist, MD
Columbus

Dave Watts, MD
(President, Metro Omaha Medical Society)
Omaha

We'd like to offer a sincere thank you to our outgoing board members for their service to the NMA and the patients of Nebraska.

Harris Frankel, MD
Omaha

Michelle Sell, MD
Columbus

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2017 Annual Meeting Recap (continued)

2017 Award Winners

Distinguished Service to Medicine

John Reed, MD
Lincoln

Physician of the Year

Kim Coleman, MD
Lincoln

Young Physician of the Year

Mike Feilmeier, MD
Omaha

Friend of Medicine

Bob Bartee
Omaha

2017 50 Year Practitioners

Jerry Adler, MD
Gordon Bainbridge, MD
Richard Bergstrom, MD
Thomas Bodensteiner, MD
Christopher Caudill, MD
Michael Collins, MD
Winston Crabb, MD
Kent Eakins, MD
Jan Golnick, MD, FAHS
Robert Heasty, Jr., MD
John Heieck, MD
Loren Jacobsen, MD
Margaret Kessinger, MD
Duane Krause, MD
Gerald Langdon, MD
George McLean, MD
William Northwall, MD
Barry Olson, MD
John Prusmack, MD
Ramakrishna Reddy, MBBS
John Reidell, MD
Alex Stolarskyj, MD
William Suleiman, MBBCH
William Vosik, MD
Kathleen Walk, MD
Stuart Westburg, MD

2017 Scholarship Winners

Andrea Bollom
Benjamin Branigan
Tyler Chonis
Elizabeth England
Jacob Fleecs
Jeffrey Frandsen
Sarah Hotovy
Nejmun Hussain
Grant Jirka
Juliana Kennedy
Michaela Klesitz
Jamie Zillig Kielian
Sarah Larsen
Elizabeth Null
Morgan Pomplun
John Riley, III
Mohan Satish
Aakriti Shrestha
Olivia Sonderman
Leah Svingen
Megan Thacker
Eric Villanueva

View photos from our event on the NMA Facebook page! Make sure to Like our page when you are there. We are also on LinkedIn, Twitter, and Instagram.

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2017 Annual Session Resolutions

The following resolutions were presented at the NMA's 2017 Annual Membership Meeting. Action taken is indicated.

RESOLUTION #1 – OPIOID EPIDEMIC

WHEREAS, the death rate from opioid overdose has quadrupled over the past 15 years in the United States, and

WHEREAS, 60 percent of the opioids that are abused are obtained directly or indirectly through a physician prescription, and

WHEREAS, Nebraska state governmental leadership is presently acting to prevent the spread of the U.S. opioid epidemic into Nebraska, and

THEREFORE, BE IT RESOLVED that the Nebraska Medical Association form a standing Opioid Abuse Committee which would:

1. Form liaisons with Nebraska DHHS and Nebraska Attorney General for informational purposes, and
2. Monitor opioid abuse in Nebraska, and
3. Inform, advise, and educate the NMA membership of Nebraska opioid abuse activity, and
4. Keep the NMA membership aware of Nebraska state law as well as proposed related legislation, and
5. Work to increase awareness of efforts including the Pain Guidance Document, Prescription Drug Monitoring Program (PDMP) and Naloxone education.

Following introduction by James Newland, MD, and discussion of the resolution, a motion was made for an amendment to the resolution as follows:

WHEREAS, the death rate from opioid misuse has quadrupled over the past 15 years in the United States, and

WHEREAS, 60 percent of the opioids that are misused are obtained directly or indirectly through a physician prescription, and

WHEREAS, Nebraska state governmental leadership is presently acting to prevent the spread of the U.S. opioid epidemic into Nebraska, and

THEREFORE, BE IT RESOLVED, that the Nebraska Medical Association form a standing Opioid Misuse Committee which would:

1. Form liaisons with the Nebraska HHS and Nebraska Attorney General for informational purposes, and
2. Monitor opioid misuse in Nebraska, and
3. Inform, advise, and educate the NMA membership of Nebraska opioid misuse activity, and
4. Keep the NMA membership aware of Nebraska state law as well as proposed related legislation, and
5. Work to increase awareness of efforts including the Pain Guidance Document, Prescription Drug Monitoring Program (PDMP) and Naloxone education.

Discussion followed. After discussion of the amendment, a motion was made, seconded, and approved to accept by the House of Delegates.

RESOLUTION #2 – DECREASING YOUTH SMOKING

WHEREAS, tobacco use is the largest preventable cause of disease and premature death in the U.S., and

WHEREAS, 17 percent of Nebraskan adults and 13 percent of Nebraska youth have identified as smokers, about half of youth smokers use two or more tobacco products, and

WHEREAS, youth use of tobacco products in any form is unsafe, irrespective of whether it is smoked, smokeless, or electronic, and

WHEREAS, youth are more sensitive to nicotine than adults and teens and can feel dependent on nicotine sooner than adults with genetic factors making quitting smoking more difficult for young people, and youth who use multiple tobacco products are at higher risk for developing nicotine dependence and might be more likely to continue using tobacco into adulthood, and

WHEREAS, tobacco use is started and established primarily during adolescence with nearly 9 out of 10

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2017 Annual Session Resolutions (continued)

cigarette smokers first trying smoking by age 18 and 99 percent first trying smoking by age 26. Each day in the United States, more than 3200 youth age 18 years or younger smoke their first cigarette and an additional 2100 youth and young adults become daily cigarette smokers, and

WHEREAS, if cigarette smoking continues at the current rate among youth in this country, 5.6 million of today's Americans younger than 18 years old will die early from a smoking related illness, and

WHEREAS, from 2011 to2016, current national rates of cigarette smoking declined among middle and high school students. However, the use of electronic cigarettes and hookahs increased. In Nebraska, however, the smoking rate which once was declining for adults and youth has now plateaued for youth, and

WHEREAS, tobacco-related illnesses account for approximately $170 billion a year in U.S. health care spending, and

WHEREAS, research has demonstrated that significantly increasing the tobacco tax is an effective strategy for reducing smoking especially for the youth and Nebraska has not increased its tobacco tax for several years, and

THEREFORE, BE IT RESOLVED that the Nebraska Medical Association support legislative measures to increase the tobacco tax including electronic cigarettes of at least $1.50/pack or electronic equivalent in Nebraska.

Following introduction by Linda Ford, MD, and discussion of the resolution, a motion was made, seconded, and approved to accept by the House of Delegates.

RESOLUTION #3 – CHILDREN'S HEALTH INSURANCE PROGRAM REAUTHORIZATION

WHEREAS, the Children's Health Insurance Program provides insurance for children with family incomes below 200 percent of the federal poverty line who are not insured, which currently accounts for 30 percent of Nebraska children, and

WHEREAS, regular health screenings and immunizations create the foundation for adult health, success in learning, and

WHEREAS, funding for this program is set to expire September 30, 2017, and

THEREFORE, BE IT RESOLVED that the Nebraska Medical Association urge Nebraska's congressional delegation to re-authorize the Children's Health Insurance Program.

Following introduction by Rowen Zetterman, MD, and discussion of the resolution, a motion was made, seconded, and approved to accept by the House of Delegates.

RESOLUTION #4 – PROTECTING CONTINUITY OF CARE

WHEREAS, evidence indicates patients are more satisfied when they see the same doctor, and

WHEREAS, the physician-patient relationship allows for continuity of information, consistent health management, and effective advocacy that is the foundation of a medical home, and

WHEREAS, in the current environment there are changes in health systems and practices that can be disruptive to that model in providing continuity of access and care, and,

THEREFORE, BE IT RESOLVED that the Nebraska Medical Association supports hospital and medical organizations allowing patients to be notified of new office information when physicians change practices.

Following introduction by Kelly Caverzagie, MD, and discussion of the resolution, a motion was made, seconded and approved to accept by the House of Delegates.

Resolutions may be submitted to the NMA Board of Directors at any time throughout the year. Resolutions or inquiries about resolutions should be directed to NMA Executive Vice President Dale Mahlman at dalem@nebmed.org or (402) 474-4472. □

Medical Student Update

Training Physician-Scientists: the UNMC MD/PhD Scholars Program

By Justin Grassmeyer
MD/PhD Scholars Program
University of Nebraska Medical Center

Medical practice is often described as a synthesis of art and science. While the art of medicine can only be perfected through vast first-hand experience, the science of medicine is based on an ever-expanding body of evidence that has arisen from biomedical research. This research ranges from basic science to purely clinical, but the most transformative advances in medical practice have involved the translation of basic research findings into clinically useful applications. These breakthroughs (a classic example being the development of cholesterol-lowering statins to combat cardiovascular disease) involve interdisciplinary teams of clinicians and scientists that collaborate—often over years—to apply laboratory research findings to clinical practice and vice-versa. While all team members can play valuable roles, individuals who have obtained formal scientific and medical training are often capable of facilitating translational research by bridging potential gaps between researchers and clinicians. Combined MD/PhD programs around the nation, including that at the University of Nebraska Medical Center, aim to provide their students with such training.

The MD/PhD program at the University of Nebraska Medical Center shares its curricular structure with many combined-degree programs: students complete the first two years of medical school, take the USMLE Step I board exam, then join a laboratory to complete the PhD portion of their training. Most students take three or four years to complete a research project, write and defend their thesis, publish at least one first-author peer-reviewed publication, and graduate. Students then return to medical school to complete third- and fourth-year required and elective clinical rotations, bringing the total time spent in the program to seven or eight years.

While this path requires a significant time investment, most MD/PhD programs waive tuition for medical and graduate school. At UNMC, these funds are provided through the College of Medicine and Chancellor's Office. Such arrangements allow MD/PhD graduates to pursue a career in academic medicine and research without a significant medical school debt load. Financial support of trainees has proven to be a worthwhile investment: a 2010 survey of graduates of NIH-funded MD/PhD programs found that over 80 percent of graduates were employed at academic medical centers, and of these, over 80 percent were engaged in research.[1]

Although many students complete their PhD in a topic related to a clinical field of interest, this relationship is not required; when an MD/PhD student chooses a PhD research lab during the M2 year, often he or she has not yet decided on a residency. In fact, it is uncommon for the topic of an established scientist's professional research career to bear any resemblance to his or her graduate research. PhD training is instead an invaluable journey in a student's educational development where he or she learns to formulate hypothesis-driven research questions, collect data, analyze results, publish findings, and compete for grant funding. A research dissertation therefore requires a focused and sustained effort to bring a project to completion. These competencies, developed in graduate school, are applicable to all fields of research and medicine in which clinician-scientists can operate. Indeed, UNMC MD/PhD students pursue their graduate research in a wide variety of fields. Recent students have pursued PhD projects in areas as diverse as public health, cancer biology, cellular and behavioral neuroscience, cardiac imaging, and clinical research informatics.

However, dual-degree programs are increasingly accommodating students who are interested in disciplines outside traditional biomedical research as well. With the broad goal of improving the delivery of health care,

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Medical Student Update

Identification, Linkage to Care and Elimination of HCV in an Urban Native American Population of Phoenix, Arizona

By Ross Luther, M2
Creighton University School of Medicine

Hepatitis C virus (HCV) is the most common blood-borne infection in the United States and throughout the world. The global burden of HCV is estimated to be approximately 180 million (prevalence of 2.8%).[1, 2] In the U.S., there are approximately five million people living with HCV, which includes one million (range 0.4-1.8 million) persons who were not included in the 2003-2010 National Health and Nutrition Examination Survey (NHANES). This overlooked cohort of infected persons includes stigmatized members of society such as inmates (n= 500,000), homeless people (n = 220,000), and Native Americans and Alaskan Indians (n= 120,000).[3, 4] Not only is HCV widespread, but it contributes to significant morbidity and mortality for those affected. Chronic HCV can lead to hepatic fibrosis, cirrhosis, and hepatocellular carcinoma. As one of the most common chronic liver diseases, HCV accounts for approximately 8,000 to 13,000 deaths each year.[5] In addition, it is the leading cause of liver transplantation worldwide.[3]

Perhaps more concerning than its sheer magnitude, the HCV disease burden in the United States is one marked by significant demographic disparity. According to the most recent NHANES, the prevalence of HCV in the U.S. is 1.6 percent, which excludes the aforementioned high-risk populations.[6] Multiple studies have revealed a greater than two-fold disparity in the prevalence of HCV among Native Americans relative to various ethnicities including Caucasians, African Americans, Hispanics, and Asians.[7, 8] Within urban populations of Native Americans, the prevalence can be as high as 8.6 percent.[8, 9] Furthermore, recent data shows that chronic liver disease and cirrhosis account for 5.3 percent of total deaths among Native Americans per year, representing the fourth leading cause of death for this population. However, liver disease and cirrhosis rank as the 15th, 14th, and 11th leading cause of death for Blacks, Asians/Pacific Islanders, and Whites, respectively.[10]

In parallel to the demographic disparity of HCV prevalence, the literature has identified several strong risk factors for HCV infection. Three consistent, predominant risk factors echoed in the literature include, injection drug use, history of blood transfusion prior to 1992, and sexual contact with HCV-infected partners.[11] For example, a case control study conducted in the United States involving 2316 HCV positive blood donors identified several strong risk factors including IV drug use (OR = 49.6), blood transfusion (OR = 10.9), sex with an IV drug user (OR = 6.3), and previous incarceration (OR = 2.9).[5, 12] Taken collectively, these findings also indicate that most individuals currently infected with HCV were born between years 1945 and 1964, heightening the need to screen the baby boomer population.[11] Underlying causes of HCV infection within the Native American population appear to mirror these general population-level findings with an additional significant risk ascribed to tattoos. Despite these findings, comprehensive epidemiological studies of HCV within Native American populations are scarce and more data is desperately needed to identify associative risk factors within this vulnerable population.

In an effort to respond to this pressing public health issue, Creighton University medical student, Ross Luther (Class of 2020), has partnered with physician investigators in Phoenix, Ariz., to design a study titled “Identification, Linkage to Care and Elimination of HCV in an Urban Native American Population.” This project is the first of its kind as it seeks to systematically eliminate HCV from a population.

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Medical Student Update

Training Physician-Scientists: the UNMC MD/PhD Scholars Program (continued)

students can pursue graduate research in relevant social science and humanities disciplines such as healthcare economics, history, philosophy, and public policy. Although former and current UNMC MD/PhD students have pursued traditional biomedical research opportunities, MD/PhD training can therefore also train physician-scientists to impact medicine beyond the traditional bench-to-bedside paradigm. Dr. Justin Mott, co-director of the UNMC program, emphasized the importance of a wide breadth of education. "The UNMC MD/PhD Scholars Program will seek to include leadership and management training as well as incorporate the arts and humanities as options for graduate programs," he explained. "This is anticipated to offer the predictability of structure and still foster the creative spirit."

The goal of the UNMC MD/PhD program is to train future physician-scientists who, in their own ways, will expand the body of scholarship used to improve medical practice. The opportunity to develop expertise in a wide variety of disciplines will ensure that the graduates of this program will be well-equipped to make an impact in a wide variety of fields. □

www.unmc.edu/mdphd

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Identification, Linkage to Care and Elimination of HCV in an Urban Native American Population of Phoenix, Arizona (continued)

Due to the elevated prevalence of HCV within urban Native American populations, the setting for this study offers a unique opportunity to confirm risk factors for infection and mitigate health disparities. The Phoenix metro area has one of the largest Native American communities in the United States with an estimated 43,724 individuals comprising three tribes/reservations: the Yavapai, Gila, and Pima.[13] Given that an estimated eight percent of urban Native Americans are infected with HCV, this study hypothesizes that approximately 3,498 Native Americans are living with chronic HCV within the Phoenix area. This study will provide community education regarding HCV, systematic screening of the entire urban Phoenix Native American Community, linkage to HCV care, provision of directly acting antiviral (DAA) therapy, and assessment of treatment outcomes and long-term liver outcomes. In addition, the study will examine the possible resolution of extrahepatic manifestations of HCV following viral clearance. These extrahepatic manifestations include fatty liver, mixed cryoglobulinemia, diabetes, cardiovascular function, cognition, and mental health. Furthermore, an epidemiological assessment within this vulnerable population will help to inform future preventative efforts and justify the allocation of costly therapeutics. With the advent of highly effective oral treatments for HCV, this definitive data is needed to highlight the health needs of vulnerable subsets of the population. The public health impact of this project is threefold: to provide the first proof of concept that elimination of HCV from a population is possible, to mitigate health disparities in at-risk subpopulations within the United States, and to inform future efforts to target these infectious source populations (i.e., active drug users) to prevent the spread of HCV.

There is certainly justification for additional applications of elimination programs such as this. This is especially true within Nebraska, where rates of acute HCV rose by 300 percent between 2011 and 2015.[14] In the past, there have been targeted screening efforts within Nebraska, albeit

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Medical Student Update

Identification, Linkage to Care and Elimination of HCV in an Urban Native American Population of Phoenix, Arizona (continued)

on a small scale. For example, a study conducted in Omaha, NE at the Fred Leroy Health and Wellness Center in 2007 screened 243 Native Americans from 30 different tribes distributed across the U.S. Their data revealed a HCV antibody positive rate of 11.5 percent (8.1% females; 18.3% males) and the HCV RNA results were reported at 8.6 percent (6.2% females; 13.4% males). All the patients who tested positive were between 30 and 59 years old. The number one risk factor was injection drug use followed by receiving a tattoo more than five years ago, having sex with an HCV positive person, alcoholism, any transfusion, any tattoo, and receiving a blood transfusion before 1992.[15] Clearly, more needs to be done in order to prevent, screen for, and treat this curable disease that disproportionately affects the disenfranchised within our communities. □

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A New Way of Learning Medicine

By Elizabeth Kumru

This fall, UNMC medical students are learning medicine a new way – the 21st century way. They are learning to think like a physician from the start.

Phase I of Training the Physicians of Tomorrow (TPT) was launched in August for incoming medical students. It is an active learning-based curriculum that emphasizes hands-on learning techniques, small-group interaction, patient-centered care, and a focus on students developing skills in inquiry.

For the past three years, a team of more than 120 College of Medicine faculty members and staff have labored to redesign the curriculum to reflect the learning habits of the device oriented, online and socially-networked millennial generation. It's an ongoing challenge.

Kelly Caverzagie, MD, associate dean for educational strategy and team leader, has overseen the complex orchestration of design and scheduling efforts across multiple specialties. It was a big task. The structure of the current curriculum, while world class, had been essentially the same since 1993.

"We have always been focused on providing the best medical education we can, and with changing times came the need for a different approach," he said. "Our goal is to integrate subjects to create a clear picture for the student. Historically, students learned different aspects of an organ system – like cardiovascular – at different points in the curriculum.

"TPT brings the details of each system together so one organ system is taught in its entirety in each block in a way that helps students learn in a manner that reflects how physicians think. It's a tightly interwoven, integrated learning experience that's more engaging and meaningful."

Last year, the redesign dovetailed with a national movement to integrate interprofessional education and practice when UNMC was selected as one of 21 medical schools in the U.S. by the American Medical Association to be part of its Accelerating Change in Medical Education Consortium. Through the consortium, UNMC is a leader in creating "the medical school of the future." Dr. Caverzagie is principal investigator for UNMC in the consortium.

For the next 18 months, students will be immersed in a series of 11 blocks that lay the foundation for the practice of medicine and provide the groundwork for the two subsequent phases. The teaching of normal structure and function of each organ system is followed by presentation of abnormalities in that system. The new block design allows students to see interactions between systems in a single educational exposure.

With the purposeful and longitudinal integration of the health systems sciences and the intertwined aspects of medical care through which physicians must interact and understand, students will develop an understanding of key principles – patient safety, quality improvement, health care financing, population management and the social determinants of health. Electronic medical records are used as realistic teaching platforms to prepare students for future success. Emphasis also is placed on physician wellness and professional identity formation.

"We're using active teaching methods that favor large and small group interactions," Dr. Caverzagie said.

Interactive methods include use of the world-class, high tech:

- iEXCEL℠ (Interprofessional Experiential Center for Enduring Learning) that includes surgical and advanced simulation clinical settings and virtual immersive reality;
- MultiTaction iWall, an experiential tool that presents content in an innovative and intuitive way;
- E-Learning modules, developed by faculty and students as specialized interactive learning tools; and
- Human patient simulators.

When the Dr. Edwin Davis & Dorothy Balbach Davis Global Center for Advanced Interprofessional Learning opens next year, the latest technology will engage learners with realistic simulated experiences designed to make learning interactive.

Phase II of the TPT curriculum provides extensive

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clinical learning experiences in six of the core disciplines of medicine. Students will begin to apply the lessons learned from the first phase and formally care for patients in both hospital and ambulatory clinical settings.

Finally, for 13 months in Phase III, students will have the opportunity to explore a variety of disciplines before settling upon a set of focused senior career tracks in their chosen specialties.

Another major change is grading. Students will be assessed as 'pass/fail' for the pre-clinical aspects of the curriculum, and then as 'honors, high pass, pass and fail' until graduation.

"Pass/fail systems have been shown to foster collaboration over competition," Dr. Caverzagie said. "We want our students to approach medicine from a team-based perspective to reflect what practicing medicine in a clinical setting is really like."

For third- and fourth-year students, a more traditional grading system allows students to differentiate themselves, or shine, in specific areas. "Students have different skills sets when working in the clinical setting. The four grades help instructors guide students to an area of expertise that matches their skills.

"It's a new era for medical education." □

New Members

Lincoln
David Blodgett, MD
Brendan Brodersen, DO
Kate Gogela, MD
Sukchan Lee, MD
Daniel Smith, MD
Jonathan Spencer, MD
Mark Wells, MD
Yifei Zhang, MD

Norfolk
Demetrio Aguila, MD

Omaha
Sara Bakhtiar
Dominique Boudreau Boadwine, MD
Michael Dobson, MD
Daniel Ermann, MD
Tim Evans
John Franzen, MD
Jeffrey Gartrell, MD
Faraz Ghoddusi, MD
Amy Hargrove, MD
Luke Kiefer
Mitchell Kohl, MD
Alyssa Lucker, DO
Lou Lukas, MD
Ross Luther, MPH
Carissa Mangus
Caitlyn Milone, MD
Garrett Mockler, MD
Brad Pfeifer
Sarah Renna, MD
Chistopher Snyder, MD
Prashanth Sripal, MD
Maria Tecos, MD
Harrison VanDolah
Naveen Kumar Vukka, MBBS
Tanner Wallen, DO

Necrology

William J. Bailey, MD
Sioux City, IA
3/17/2017

Charles L. Barton, MD
Lincoln, NE
4/19/2017

Noah C. Beadell, MD
Lincoln, NE
5/26/2017

Dennis R. Bozarth, MD
Lincoln, NE
8/28/2017

Roger W. Dilley, MD
Fremont, NE
9/2/2017

William T. Griffin, MD
Omaha, NE
6/4/2017

Patricia L. Grossman, MD
Lincoln, NE
6/11/2017

Charles A. Hamilton, MD, PhD
Omaha, NE
8/19/2017

Robert L. Kruger, MD
Fremont, NE
5/6/2017

Hans Rath, MD
St. Louis, MO
6/11/2017

Noble L. Swanson, MD
Roca, NE
6/3/2017

Richard J. Thompson, MD
Lincoln, NE
7/20/2017

Ask a Lawyer

How Can a Medical Practice Protect Itself from Employee Theft or Fraud?

It is embarrassing. You kick yourself. How could it have happened?

You have just discovered that your practice is missing a lot of money, and it seems that all of the evidence is pointing to a trusted employee. You are disappointed, heartbroken, and "mad as hell." You hired the employee because he had great people skills, had a terrific resume, and came from a family you knew. He went to school with your sister. He was settled and had a wife, kids, a nice house, and he had what you did not -- a business degree. He could "do it all" and had been with you for several years. The practice seemed to have been running well, at least you thought so, until your accountant called, or a certified letter was hand-delivered, or a vendor with a long past due statement leaves an angry message on your home phone.

If you are lucky, embarrassment, anger, and disappointment will be all you will feel about the situation. If you are lucky, you will be the one to discover an employee's embezzlement rather than having it "discovered for you" as one physician did. In that case, the first indication there was a problem with the practice's finances was an unscheduled office visit by Internal Revenue Service Agents wanting to know why the practice had not been making payroll deposits over the past several quarters -- not a good way to find out that you have an employee who is stealing from you.

Embezzlements, thefts, or fraud perpetrated by employees are crimes of opportunity. They can continue for years undiscovered. Apart from employee bonding or fidelity and crime insurance, how can you protect yourself from being the next victim?

Here are seven steps you can take to avoid having your practice fall prey to employee theft:

1. Watch your practice's "big picture" for signs of trouble. You may be working as hard as ever. Your schedule is full, but your income is flat or going down. A steady flow of cash has slowed to a trickle. Why is that? Find out the answer yourself or get help from your accountant to dig into the facts. There is an explanation. It may have nothing to do with employee misconduct, but you will not know the reason unless you get the facts.
2. Be aware of what is going on with your employees and the stresses that may make them susceptible to temptation. Addiction issues, family or relationship problems, or serious personal or family member illness could weaken even the best employee's honesty or ability to resist "borrowing" from your practice.
3. Have an annual budget and track expenses and income against the budget. Identify historical trends for income and expenses for comparison purposes. Watch for monthly variances from the budget. Ask questions. Expect and get answers.
4. Make sure your business office processes segregate duties. Separation or segregation of duties even within a small office is critical to reduce the risk of employee theft. The same person who receives and documents cash payments at the front desk or who opens the mail should not be the person posting those payments to patient accounts or authorizing the write-off or adjustment of patient accounts. The person who approves a purchase order should not be the person who writes the checks or who authorizes payment on a purchase order. The employee making bank deposits should not be responsible for reconciling the practice's monthly bank statement. Your CPA should be able to advise you about how best to separate duties in your business office to minimize employee-related risk of loss.
5. Require your front and back office employees to take their vacations for at least five consecutive business days each year. Often employee theft is identified

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The Dangers of "Copy and Paste" in EHRs

Contributing factors and recommendations to address these

By COPIC's Patient Safety and Risk Management Department

A recent JAMA Internal Medicine article[1] highlighted research by a group at the University of California San Francisco Medical Center that examined the prevalence of copying and pasting with electronic health records (EHRs). Using a software update, the group was able to identify what characters were manually entered, what information was imported from another source (labs and medication lists) and what was copied/pasted from a previous note.

Approximately 22,630 inpatient notes were examined over the course of eight months. On a typical inpatient note, 18 percent was manually entered, 46 percent copied/pasted, and 36 percent imported. Medical residents averaged 11.8 percent manually entering information while attending hospitalists averaged 14.1 percent (though they wrote the shortest notes).

"The traditional goal of progress notes is to provide a concise, up-to-date reflection of the patient's condition and the clinician's thought process," said the researchers. "However, copying or importing text increases the risk of including outdated, inaccurate, or unnecessary information, which can undermine the utility of notes and lead to a clinical error."

There are limitations to this study since it is based on a single hospital, single service evaluation, and it occurred at a major teaching hospital. However, results are consistent with previous medical literature and identified challenges include:

- **The "signal to noise" issue**—The sheer volume of information is overwhelming and makes it difficult to sort out what the key issues are and what one should be concerned about. A routine ED visit is typically five pages, yet there are often only a few lines of the clinician's thought process that are really important. Previous research has shown that in a typical private ED, approximately 44 percent of the time was spent on data entry and 28 percent was spent on direct patient care.
- **The problem of inaccurate information**—When over 80 percent of what is in the record comes from somewhere else, there is a greater chance of an error being documented. We have seen records where the patient has been extubated for five days while the records still say the patient is intubated. There is also the issue of the wrong acronym or wrong extremity being carried forward. Outdated and inaccurate notes may impact patient safety, lead to patient errors, and make a record hard to explain and defend.
- **New software can track how much of a note is original**—As this new capability becomes more available, there are concerns with what Medicare, other insurance payors, and the legal system will accept as a reasonable amount of copying and pasting. Will there be regulatory fraud and abuse claims around this practice?

Earlier this year, a National Institute of Standards and Technology (NIST) report[2] raised similar issues with the overuse of "copy and paste." The report outlined the following recommendations in terms of improvements that could be made with EHR design and training:

- **Provide a mechanism to make "copy and paste" material easily identifiable**—EHR systems should be designed to enhance the visibility of the information being selected for "copy and paste" to prevent users from inadvertently copying only part of the information that was intended to be copied. In addition, systems should provide a concept for reconciling that the copied information was read consciously and edited by the clinical provider which would promote the attribution of the source of the information.
- **Areas where "copy and paste" should be locked**—The "copy and paste" function should not be used when entering any information into a blood bank information system due to the extreme risk involved in blood transfusion. Demographic information should

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Ask a Lawyer (continued)

when an employer reviews an absent employee's work or has another employee cover the vacationing employee's duties when they are away.

6. Combine your anti-theft efforts with your office compliance program. A code of conduct, an employee handbook, business office policies and procedures, and compliance policies communicate your expectations for all employees. Provide employees a method to report issues they identify to you or to one of the other practice owners on an anonymous or confidential basis. Often, employee thefts are found because another employee provided an important tip.
7. If you are not already doing so, consider having an annual audit completed by your accountant for a regular review of the practice's financial records and processes. If there is a real possibility of a theft being discovered, there may be fewer tempted to give it a try.

Anti-theft policies or processes will not eliminate the chance that you or your practice may fall victim to an employee's theft or fraud, but taking a few of the steps suggested above should help you minimize that risk.

Ask a Lawyer is a feature of the Nebraska Medicine. If you have a legal question of general interest, please write the Nebraska Medical Association. Answers to submitted questions are provided by the Nebraska Medical Association's legal counsel, Cline Williams Wright Johnson & Oldfather, L.L.P., 1900 U.S. Bank Building, 233 S. 13th St., Suite 1900, Lincoln, NE 68508–2095. The answer in this issue was provided by Jill Jensen of the Cline Williams Law Firm. Questions relating to specific, detailed, and factual situations should continue to be referred to your own counsel.

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The Dangers of "Copy and Paste" in EHRs

Contributing factors and recommendations to address these (continued)

never be copied, but needs to be auto-populated in all the interfaces within a patient's chart. And copying of demographic data from one chart to another should not be allowed, and dates should never be copied and pasted.

- **Ensure that the origin of "copy and paste" material is readily available**—User interface must display the "chain of custody" of the information associated with the use of "copy and paste." However, this information should not be displayed by default, and only be shown on user demand to avoid the possibility of overwhelming clinical users and contribute to errors of commission (taking an incorrect action).
- **Ensure adequate staff training and education regarding the appropriate and safe use of "copy and paste."**—Most of the research study participants that the report was based on said that training raises awareness of the error prone actions while using the "copy and paste" function, and would increase their efficiency as well as help them use the functionality in a safe way. □

REFERENCES

1) *JAMA Intern Med. Published online May 30, 2017. doi:10.1001/jamainternmed.2017.1548*

2) http://nvlpubs.nist.gov/nistpubs/ir/2017/NIST.IR.8166.pdf

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