TOPIC INFO

TOPIC:	TESTICULAR CANCER 101
SPEAKER:	ROHAN SHARMA MD
TITLE:	ONCOLOGIST
AFFILIATION	NORTHWEST MEDICAL SPECIALTIES
TIME:	30 minutes

PRACTICE GAP ANALYSIS: TESTICULAR CANCER 101

Describe the problems or gaps in practice this activity will address:

What are you trying to change?

The American Cancer Society's estimates for testicular cancer in the United States for 2020 are:
About 9,610 new cases of testicular cancer diagnosed
About 440 deaths from testicular cancer
The incidence rate of testicular cancer has been increasing in the US and many other countries for several decades. The increase is mostly in seminomas. Experts have not been able to find reasons for this. Lately, the rate of increase has slowed.
Testicular cancer is not common: about 1 of every 250 males will develop testicular cancer at some point during their lifetime.
The average age at the time of diagnosis of testicular cancer is about 33. This is largely a disease of young and middle-aged men, but about 6% of cases occur in children and teens, and about 8% occur in men over the age of 55.
Because testicular cancer usually can be treated successfully, a man's lifetime risk of dying from this cancer is very low: about 1 in 5,000. If you would like to know more about survival statistics, see Testicular cancer survival rates.

What is the problem

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.
The SEER database tracks 5-year relative survival rates for testicular cancer in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by AJCC TNM stages (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:
Localized: There is no sign that the cancer has spread outside of the testicles.
Regional: The cancer has spread outside the testicle to nearby structures or lymph nodes.
Distant: The cancer has spread to distant parts of the body, such as the lung, liver, or distant lymph nodes.

A thorough understanding of below factors helps in treating testicular cancer
Knowledge of Causes, Risk factors and Prevention –
Early detection, Diagnosis and staging
Treatment and After treatment

How did you assess and/or measure these issues?

How was the educational need/practice gap for this activity identified? Place an X by each source utilized to identify the need for this activity.

Attach copies of documentation for each source indicated (REQUIRED)
* please make sure when selecting your needs assessment data and references that you highlight applicable components.

	Method	Example of required document
	Previous participant evaluation data	Copy of tool and summary data
	Research/literature review	Abstract(s) or articles
x	Expert Opinion	Summary
	Target audience survey	Copy of tool and summary data
	Regulatory body requirements	Requirements summary
	Data from public health sources	Abstract, articles, references
	Other (describe)	

Describe the needs of learners underlying the gaps in practice:

What are the causes of the gaps in practice? Check all that apply

x	Lack of awareness of the problem,		Poor self-efficacy,
x	Lack of familiarity with the guideline,		Inability to overcome the inertia of previous practice, and
	Non-agreement with the recommendations,		Presence of external barriers to perform recommendations
	Other		

Why does the gap exist? Check all that apply

x	Lack of Knowledge competence		Lack of time to assess or counsel patients
	Performance-based.		Cost / Insurance/reimbursement issues
	Lack of consensus on professional guidelines		Patient Compliance Issues
	Other:		

What do learners need to be able to know or do to be able to address the gaps in practice?

Much can be improved by
Identifying current screening recommendations for testicular cancer
Knowledge of Basic Classification and Treatment recommendations for testicular cancer
Understanding Toxicity and Survivorship Concerns for testicular cancer patients

CME OBJECTIVES : TESTICULAR CANCER 101

State at least three or more things that participants should be able to do after they participate in this CME activity. Please note these objectives should be measurable, specific, actionable and timely.
Upon completion of this activity, attendees should be able to:

1	Identify current screening recommendations for testicular cancer
2	Basic Classification and Treatment recommendations for testicular cancer
3	Toxicity and Survivorship Concerns for testicular cancer patients

The ACCME does not want you to use the words - think, understand, know, appreciate, learn, comprehend, be aware of, be familiar with, etc. as they are not measurable.

You can use words such as Analyze, Categorize, Classify, Compare, Conclude, Construct, Critique, Define, Demonstrate, Describe, Discuss, Evaluate, Identify, List, Name, Outline, Show

COMPETENCIES: TESTICULAR CANCER 101

What ACGME or IOM related competency is associated with this activity? (check all that apply)

x	Patient Care		Practice-Based Learning and Improvement		Medical/Clinical Knowledge
	Procedural Skills		Interdisciplinary Teams		Teams and Teamwork
x	Communication Skills		Professionalism		Systems-based Practice
	Quality Improvement		Utilization of Informatics		Evidence-based Practice

What is the activity designed to change

x	**Competence** - (knowing how to do something) Selecting this option requires the CME activity being planned provide participants with an opportunity to: • hear information related to advances or best practice • hear examples of application in practice of information presented
	Performance- (actually doing something) Selecting this option requires the CME activity being planned provide participants with an opportunity to: • practice what they have learned during the CME activity • receive feedback about doing what they have learned during the CME activity
	Patient Outcomes- (actually measure change in patients) Selecting this option requires the CME activity track change in patient outcomes: • provide tangible improvements and data to support overall change to patient outcomes

What potential barriers do you anticipate attendees may encounter when incorporating new objectives into their practice?

x	Lack of time to assess or counsel patients	Other – describe:
	Cost	
	No perceived barriers	
	Lack of administrative support/resources	
	reimbursement issues	
	Insurance/	

Describe how will this educational activity address these potential barriers and the strategies used?

RESULTS: TESTICULAR CANCER 101

please describe the results expected (outcomes) for this activity in terms of specific improvements in patient care and/or other work related to the practice of medicine.

	Your description
x	Improvements in patient care based on evidence-based treatment
	Reduce Health care costs
x	Streamline care of patients

MEASURING YOUR SUCCESS: TESTICULAR CANCER 101

Will use pre-and post CME activity questionnaire to measure success.
Please provide 3 questions and answers that will asked to the audience before and after your talk. The answer to these questions should be in your presentation. Please highlight the correct answer and limit your possible answers to a maximum of 4 with only one correct answer. The others can be partially correct or wrong

Question 1.

A 25-year-old male was diagnosed with a stage IA testicular seminoma 5 years ago, which was treated with orchiectomy. Risks and benefits of adjuvant treatment options including chemotherapy and radiation were discussed with him at the time and he elected for observation. His tumor markers have remained undetectable over this period of time, but at his last visit 3 weeks ago you note that his BHCG is now elevated at 5, while LDH and AFP are normal. CT imaging reveals no masses, testicular ultrasound also is unrevealing for disease in the other testicle. What is your next plan of action?

Answers

	1	Order a PET scan now
	2	Initiate on BEP
	3	Inquire about social history and continue observation as per NCCN guidelines
	4	Order repeat imaging and tumor markers at a shortened interval in about 2-3 months

Feedback: Please provide a detail feedback (MOC) requirements for above questions in two groups

1. Order a PET scan now: wrong Answer.
2. Initiate on BEP: wrong Answer
3. Inquire about social history and continue observation as per NCCN guidelines: Correct Answer.

   Likely this patient has pituitary hypogonadism from testicular hypofunction, pituitary gland is producing HCG because of loss of negative feedback. Other false positive causes of mild elevations in BHCG include marijuana usage, heterophile interference in the assay particularly in IgA deficient patients

   • Takizawa, Akitoshi, et al. "The usefulness of testosterone administration in identifying false-positive elevation of serum human chorionic gonadotropin in patients with germ cell tumor." Journal of cancer research and clinical oncology 144.1 (2018): 109-115.
4. Order repeat imaging and tumor markers at a shortened interval in about 2-3 months: wrong Answer

Question 2

A 30-year-old male is diagnosed with a stage IIC nonseminoma and follows up with a local oncologist. The oncologist advises for 3 cycles of BEP chemotherapy. The patient completes 1 cycle of BEP and subsequently develops a dry cough and is found to be neutropenic with ANC of 100. CT chest is as below:

insert CT chest image showing pneumonitis please send the image

How would you proceed with adjustment of future cycles of chemotherapy?

	Answers	
	1	Give steroids, reduce bleomycin dose by 50% and give GCSF to improve neutropenia and plan for 2 additional cycles of BEP
	2	Give steroids, discontinue bleomycin completely and proceed with etoposide and cisplatin alone for 3 cycles
	3	Give steroids, reduce bleomycin dose by 50%, but do not give GCSF and plan for 2 additional cycles of BEP
	4	Give steroids and delay BEP until respiratory symptoms resolve, still plan for 2 additional cycles of BEP

Feedback: Please provide a detail feedback (MOC) requirements for above questions

1. Give steroids, reduce bleomycin dose by 50% and give GCSF to improve neutropenia and plan for 2 additional cycles of BEP: wrong answer.
2. Give steroids, discontinue bleomycin completely and proceed with etoposide and cisplatin alone for 3 cycles: Correct Answer

   According to NCCN guidelines, EPx4 is equivalent to BEPx3 in terms of effectiveness. Bleomycin-induced toxicity can result in permanent lung fibrosis and any abnormal CT findings should prompt steroid treatment, discontinuation of bleomycin. The canonical trials for testicular cancer treatment did not involve dose adjustments for neutropenia, delays in chemo or use of growth factor (evidence it may lead to worse outcomes) and therefore are not done.

   • NCCN guidelines testicular cancer, Ge, Victor, et al. "Bleomycin-induced pulmonary toxicity and treatment with infliximab: A case report." Clinical case reports 6.10 (2018): 2011.
3. Give steroids, reduce bleomycin dose by 50%, but do not give GCSF and plan for 2 additional cycles of BEP: wrong answer
4. Give steroids and delay BEP until respiratory symptoms resolve, still plan for 2 additional cycles of BEP: wrong answer

Question 3

Which of these risk factors portends the highest odds for testicular cancer?

	Answers	
	1	Cryptorchidism
	2	Family history of testicular cancer in the father
	3	Height
	4	Prior unilateral testicular cancer

Feedback: Please provide a detail feedback (MOC) requirements.

1. Cryptorchidism: wrong Answer
2. Family history of testicular cancer in the father: wrong Answer
3. Height: wrong Answer
4. Prior unilateral testicular cancer: Correct Answer.

> According to table 1 in McGlynn, Katherine A., and Britton Trabert. "Adolescent and adult risk factors for testicular cancer." Nature Reviews Urology 9.6 (2012): 339-349. odds ratio of 12.4 (11.0–13.9)