

18th Focus on Melanoma Patient conference

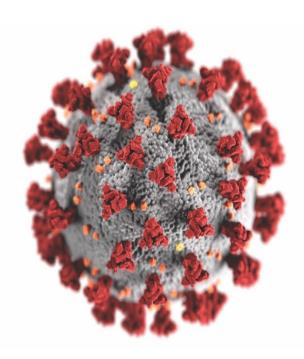
Update on COVID-19 infection and COVID-19 Vaccine for Cancer Patients

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SARS-CoV-2 and COVID-19

- ► Identified in Wuhan, China in 2019
- ► Declared a pandemic in March, 2020
- ► Cases in US > 32 Million
- ► Deaths in US > 575,000
- Very clear early on, that patients with cancer are increased risk for complications of COVID and death from COVID
- ► 60% Adults in US with at least one dose of COVID vaccine



GUIDING PRINCIPLES: CARE OF CANCER PATIENTS

- Timely and high quality care of cancer patients
- Protect patients from COVID-19 infection
- Reduce complications of COVID-19 infection in patients with cancer
- Protect all physicians, nurses, health care workers











COVID-19 Vaccine- Prioritization

- Cancer patients at increased risk for complications from COVID-19
 - Age \geq 65
 - Patients on active therapy (chemotherapy, immunotherapy, targeted therapy)
 - Patients with advanced cancer-metastatic
 - Patients with Hematological Malignancies regardless of treatment status
 - Patients with Lung Cancer



Efficacy of COVID-19 Vaccines

Company	Platform	Doses	Non-clinical results	Number of people who got vaccine	Protection from hospitalizations /death	Protection from severe disease (may not be hospital)	Efficacy against milder disease
moderna	mRNA-1273 mRNA in lipid nanoparticle	2	Neutralizing Abs; Strong Th1 response; protection from challenge	~15,000	100%	100% (30 cases in placebo arm; 0 in vaccine)	94.1%
Pfizer	BNT162b2 mRNA in lipid nanoparticle	2	Neutralizing Abs; Strong Th1 and Th2 response; protection from challenge	~18,600	100%	100% (9 cases in placebo arm; 0 in vaccine)	95%
AstraZeneca	AZD 1222 Non-replicating Chimp Adenovirus- DNA	2	Neutralizing Abs; Strong Th1 and Th2 response; protection from challenge	~5800	100%	100% (10 in placebo; 0 in vaccine)	90% half-full- dose; 70% overall
Johnson-Johnson	JNJ-78436725 Non-replicating human adenovirus/DNA	1	Neutralizing Abs; Strong Th1 and Th2 response; protection from challenge	~22,000	100%	85% (across South Africa, U.S., Latin America	72% US; 66% Latin America; 57% S. Africa
NOVAVAX Creating Tomorrow's Vaccines Today	NVX-CoV2373 Spike protein/RBD + Matrix M adjuvant	2	Neutralizing Abs; protection from challenge	~9700	100%		89.3% UK; 60% S. Africa
S-putnik V	Ad26 and Ad5 adenovirus/DNA	2	Neutralizing Abs; Strong Th1 and Th2	~11360	100%	100% (20 cases placebo; 0 in	91.4%

Is it safe for cancer patients to get COVID-19 vaccine?

Is it safe for cancer patients to get COVID-19 vaccine?

YES

Strong recommendation for all cancer patients to get the vaccine

Which COVID Vaccines are available? Does it matter which vaccine I receive?

Which COVID Vaccines are available?

Pfizer-BioNTech
Moderna
Johnson & Johnson

What are the Side Effects of the COVID-19 Vaccine

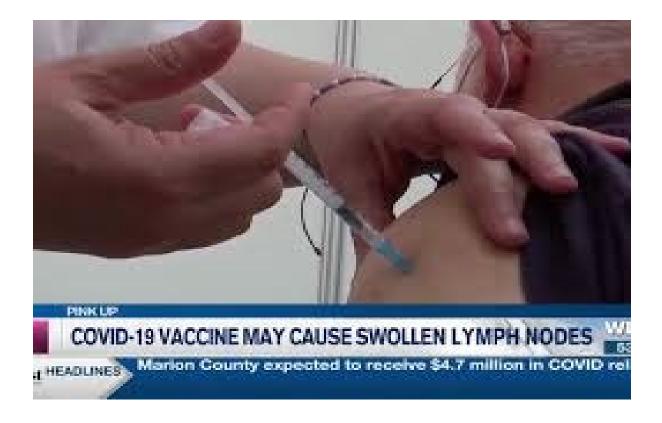
- Pain and redness at injection site
- Tired
- Headache
- ► Fever, chills
- ► Muscle, Joint pain
- Nausea
- Vaccine DOES NOT
 - Effect fertility
 - Does not cause cancer
 - No possibility that mRNA vaccine can cause cancer

Blood Clots

- Very rarely, people who have received Johnson & Johnson vaccine have developed serious blood clots.
- Most commonly in women between 18-59 and occurs 6-15 days following the vaccine.



COVID-19 Vaccine and Swollen Lymph nodes



Will the COVID-19 Vaccine work if I am on treatment?

- ► COVID Vaccine should be given to all cancer patients, especially those patients on active therapy including immunotherapy, targeted therapy, or chemotherapy
- Efficacy of Vaccine in patients on active therapy:
 - Possible that immune response won't be as robust but still predicted to be of benefit
 - No issues of timing of vaccine in relationship to treatment
 - Vaccine can be given on same day as treatment- including radiation
- Exclusion Criteria for Vaccine
 - COVID-19 infection within last 90 days
 - If undergoing bone marrow transplant for CAR T cell therapy

Do I still need to take precautions if I get the COVID-19 Vaccine

YES

Additional Guidance for Vaccine in our Patients

- Management of Fever/Chills
 - Common side effect, especially with second dose of vaccine
 - Important to understand, especially if on active treatment
- What about patients who have low WBC?
 - No specific guidance regarding holding vaccine during neutropenia but makes evaluation of fever clinically more challenging
- What about patients with low platelet count?
 - Safe to give to patients even with very low platelet counts as volume of the vaccine is small

What happens if I get COVID-19 Infection?

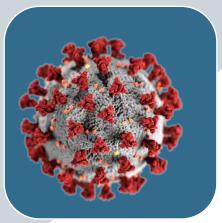
Care of COVID-19 in Cancer Patients

Use of Monoclonal Antibody for COVID infection

Call with any concerning symptoms







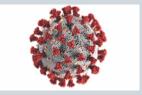
Management of Cancer Therapy

Resuming Cancer Therapy Safely

What you need to do to safe and healthy:

Be smart about COVID

- Wear Mask where appropriate
- Get your COVID Vaccine
- Call your doctor or nurse with any concerns about symptoms of COVID or exposure to COVID



Get to cancer screening appointments

- Mammogram
- Pap Smears
- Colonoscopy



See Your Dermatologist

- Missed derm appts
- Telehealth can only take you so far— need an examine



Safe Sun Practices