Regimen Reference Order

THOR – nivolumab + ipilimumab (mesothelioma)

ARIA: LUNG – [nivo + ipi (MPM)]

Planned Course: **nivolumab (every 2 weeks) and ipilimumab (every 6 weeks) until disease progression or unacceptable toxicity up to a maximum of 2 years (18 cycles) of therapy (1 cycle = 42 days)**

Indication for Use: **Malignant Pleural Mesothelioma, Unresectable**

Drug Alert: Immune Checkpoint Inhibitor (nivolumab and ipilimumab)

CVAD: At Provider's Discretion

Proceed with treatment if:

- ***ANC equal to or greater than 1.5 x 10^9/L AND Platelets equal to or greater than 50 x 10^9/L***
- ***AST/ALT equal to or less than 3 times the upper limit of normal***
- ***Total bilirubin equal to or less than 1.5 times the upper limit of normal***
- ***Creatinine clearance is equal to or greater than 30 mL/minute***
  - ❖ **Contact Physician if parameters not met**

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
Not Applicable		

Treatment Regimen – THOR – nivolumab + ipilimumab (mesothelioma)

Establish primary solution 500 mL of: normal saline

Drug	Dose	CCMB Administration Guideline
Day 1		
nivolumab	3 mg/kg	IV in normal saline 100 mL over 30 minutes *Use 0.2 or 0.22 micron filter* **Nursing Alert: After completion of nivolumab infusion, wait 30 minutes before administering ipilimumab* **Nursing Alert: Start a new primary infusion line for ipilimumab*
ipilimumab	1 mg/kg	IV in normal saline 50 mL over 30 minutes *Use 0.2 or 0.22 micron filter*
Day 15		
nivolumab	3 mg/kg	IV in normal saline 100 mL over 30 minutes *Use 0.2 or 0.22 micron filter*

Day 29		
nivolumab	3 mg/kg	IV in normal saline 100 mL over 30 minutes *Use 0.2 or 0.22 micron filter*
Maximum nivolumab dose is 240 mg All doses will be automatically rounded that fall within the DSG Approved Dose Bands. See THOR DSG – Dose Banding document for more information		

In the event of an infusion-related hypersensitivity reaction, refer to the **'Hypersensitivity Reaction Standing Order'**

REQUIRED MONITORING

All Cycles

Days 1, 15 and 29

- CBC, serum creatinine, urea, electrolytes, liver enzymes, total bilirubin, albumin and glucose as per Physician Orders
- TSH and Cortisol levels should be checked prior to each ipilimumab dose (Day 1) and at physician's discretion
- Medical oncologist or designate (i.e. family practitioner in oncology) must assess patient for immune-mediated adverse reactions prior to each dose
- Full vital signs (temperature, heart rate, respiratory rate, blood pressure and O_2 saturation) at baseline and as clinically indicated
- No observation period is required after nivolumab or ipilimumab. Patient can be discharged from treatment room if stable whether they had a reaction or not

Imaging

- CT chest every 12 weeks as per Physician Orders

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
None required		

DISCHARGE INSTRUCTIONS

- Patients should be instructed to contact their cancer team immediately if symptoms of hypersensitivity reactions occur after discharge
- Confirm that patient has received the CCMB Immune Checkpoint Inhibitor Medical Alert wallet card
- Reinforce to patient the immune-mediated adverse reactions and importance of reporting immediately
  - For severe symptoms, the patient should be instructed to go to the nearest emergency room. Oncologist on call should be contacted

ADDITIONAL INFORMATION

- nivolumab and ipilimumab are Immune Checkpoint Inhibitors. Consult with oncologist for immune-mediated adverse reactions; corticosteroids are often indicated
- Administration site restrictions are in place for ipilimumab. ipilimumab should only be administered at a facility where pharmacy compounding occurs on site