



MULTIPLE MYELOMA CIG CLINICAL SURVEY RESULTS

These survey items served as the foundation for consensus recommendations within the SITC Multiple Myeloma Cancer Immunotherapy Guideline. Further discussion during the expert panel meeting, draft revisions, and teleconferences were used to refine and develop guideline recommendations derived from but not identical to statements captured in these results.

1. What best describes your primary role?

- a. Medical oncologist—18%
- b. Hematologist—12%
- c. Hematologist/Oncologist—65%
- d. Surgical Oncologist
- e. Radiation Oncologist
- f. Nurse practitioner
- g. Nurse (RN)
- h. Patient Advocate
- i. Other: Hematopathologist—6%

2. Which treatment(s) do you administer yourself on a regular basis for Multiple Myeloma patients? (Check ALL that apply)

- a. Chemotherapy
- b. Radiation Therapy
- c. Targeted Therapy
- d. Immunotherapy—30%
- e. Clinical Trials—6%
- f. All of the Above—58%
- g. Other: I do not treat patients—6%

3. Which of the following factors influences your recommendations for treatment with immunotherapy? (Check ALL that apply)

- a. Patient age—100%
- b. Performance status—100%
- c. Presence of recurrent and/or metastatic disease—100%
- d. Prior therapy exposure (chemotherapy)—88%
- e. Prior therapy exposure (radiation)—6%
- f. Prior therapy exposure (surgical)—0%
- g. Prior therapy exposure (bone marrow transplant)—41%
- h. Prior therapy exposure (other immunotherapies)—47%
- i. Relevant biomarker status—6%
- j. Clinical trial availability—12%



Daratumumab

- 1. In which patients would you feel comfortable using daratumumab? (Please select ONE response)**
 - a. Severe renal insufficiency (CrCL<30)—35%
 - b. Liver failure
 - c. Both—53%
 - d. All Patients—6%
 - e. Neither—6%

- 2. How would you incorporate daratumumab into the treatment of patients with plasma cell leukemia? (Please select ONE response)**
 - a. I would not use daratumumab until more data is available in this patient population—18%
 - b. I would use daratumumab, extrapolating from combinations tested and felt to be safe in patients with MM—53%
 - c. I would use daratumumab in combinations outside of those tested in patients with MM—23%
 - d. Not Applicable—6%

- 3. Do you routinely use IVIG supplementation in patients receiving daratumumab-based therapy? (Please select ONE response)**
 - a. Yes, I use it in all my patients—82%
 - b. No, I do not use it in any patients—12%
 - c. I administer IVIG using similar criteria for every regimen, and my criteria are not specific to daratumumab
 - d. Not Applicable—6%

- 4. In your relapsed patients requiring treatment where you will likely use both a daratumumab-containing regimen and an elotuzumab-containing regimen, what is your order of preference? (Please select ONE response)**
 - a. I would use an elotuzumab regimen followed by a daratumumab regimen—24%
 - b. I would use a daratumumab regimen followed by an elotuzumab regimen—59%
 - c. The order does not matter—17%

- 5. What frontline dara-containing regimen(s) would you feel comfortable recommending for transplant-eligible patients (select all that apply)?**
 - a. D-VMP—7%
 - b. D-Rd—40%
 - c. D-VRd—87%
 - d. D-KRd—67%



- 6. Do you reconsider going back to weekly dosing if patients progress on monthly dosing of dara?**
- a. Yes—64%
 - b. No—36%

Elotuzumab

- 1. Would you ever feel comfortable recommending elotuzumab-containing regimens in the front-line setting?**
- a. Yes—20%
 - b. No
- 2. Do you recommend elotuzumab-containing regimens for patients with rapidly growing disease burdens?**
- a. Yes—13%
 - b. No—87%
- 3. For previously treated multiple myeloma, would you feel comfortable recommending elotuzumab plus bortezomib and dexamethasone?**
- a. Yes—53%
 - b. No—47%
- 4. Would you feel comfortable recommending elotuzumab-containing regimens for patients who have progressed on daratumumab-containing regimens?**
- a. Yes—87%
 - b. No—13%
- 5. Would you feel comfortable using elotuzumab in patients with severe renal insufficiency (CrCL<30)?**
- a. Yes—87%
 - b. No—13%
- 6. Would you feel comfortable using elotuzumab in patients with hepatic impairment?**
- a. Yes—67%
 - b. No—33%
- 7. Would you feel comfortable using elotuzumab in patients with plasma cell leukemia?**
- a. Yes—33%
 - b. No—67%

Isatuximab



1. **In patients with pulmonary disease (decreased FEV1 in pulmonary function tests) do you use any additional premedication? (Please select ALL that apply)**
 - a. Albuterol inhaler—6%
 - b. Albuterol nebulizer—6%
 - c. Albuterol inhaler or nebulizer—12%
 - d. None
 - e. Montelukast—76%
 - f. Other: _____

2. **As first-line therapy in patients with relapsed myeloma, would you recommend a combination therapy based on daratumumab, elotuzumab or isatuximab? (Please select ONE response)**
 - a. Elotuzumab
 - b. Daratumumab—35%
 - c. Isatuximab
 - d. Depending on patient and relapse—59%
 - e. Not applicable—6%

3. **For newly diagnosed multiple myeloma patients, which treatment would you recommend? (Please select ONE response)**
 - a. Isatuximab + VRd—77%
 - b. VRd alone—23%

4. **Which of the following factors influences your decision NOT to give Isatuximab to a patient with newly diagnosed multiple myeloma? (Choose all that apply)**
 - a. Patients who have progressed on a daratumumab containing regimen—12%
 - b. Patients that have had an allergic reaction to isatuximab or its components—18%
 - c. Prior adjuvant therapy within 6 months
 - d. Prior treatment exposure (Other mAbs, chemotherapy)
 - e. Patient age (e.g functionally > 80)—6%
 - f. Performance status
 - g. Tumor mutational load
 - h. History of potentially life threatening AI condition and/or need for immunosuppressive—6% therapy
 - i. Recent History of cardiovascular co-morbidities
 - j. No experience with this drug—35%

5. **Which of the following factors influences your decision NOT to give Isatuximab to a patient with refractory multiple myeloma (1 or more prior lines of therapy)? (Choose all that apply)**
 - a. Patients who have progressed on a daratumumab containing regimen—24%
 - b. Patients that have had an allergic reaction to isatuximab or its components—29%
 - c. Prior adjuvant therapy within 6 months
 - d. Prior treatment exposure (Other mAbs, chemotherapy)—17%
 - e. Patient age (e.g functionally > 80)
 - f. Performance status
 - g. Tumor mutational load
 - h. History of potentially life threatening AI condition and/or need for immunosuppressive therapy—12%
 - i. Recent History of cardiovascular co-morbidities



- j. No personal experience with this drug—17%
- 6. Does cytogenetic risk status impact your decision to prescribe isatuximab? (Please select ONE response)**
- Yes - Patients with high risk cytogenetics may have a lower response rate compared to patients with standard risk myeloma—12%
 - Yes – Patients with low risk cytogenetics may have a lower response rate compared to patients with standard risk myeloma—6%
 - No—71%
 - Not Applicable—12%
- 7. If a patient has progressed on a regimen containing daratumumab in a prior line of therapy and you are considering using a CD38 antibody again in a subsequent line of therapy, which agent would you favor using again as the preferred CD38 antibody? (Please select ONE response)**
- Isatuximab—53%
 - Daratumumab—47%
- 8. In which patients would you feel comfortable using isatuximab? (Please select ONE response)**
- Severe renal insufficiency (CrCL<30)—29%
 - Liver failure
 - Both—36%
 - Neither—29%
- 9. Would you feel comfortable using isatuximab in patients with COPD?**
- Yes—71%
 - No—29%

CAR T cell therapies

- 1. What is the preferred sequence for T cell redirection therapies? (Please select ONE response)**
- Bi-specific > CAR T—17%
 - CAR T > Bi-specific—24%
 - Agnostic to sequence—59%
- 2. What is the preferred sequence for BCMA-directed therapies? (Choose all that apply)**
- ADC before T cell directed therapy—18%
 - T cell directed therapy before ADC—29%
 - After one T cell directed therapy (CAR or Bi-specific), try an ADC before trying the other T cell directed therapy—18%
 - Agnostic to sequence—41%



- 3. In clinical trials, bridging therapies are typically exclusively therapies which have been used prior for that patient. How would you approach other strategies for bridging therapy? (Please select ONE response)**
- Only use treatments which the patient has been exposed to prior—12%
 - Would be willing to use any treatments which the patient is naïve to—59%
 - Would be willing to use some treatments which the patient is naïve to—12%
 - Not Applicable—6%
- 4. How would you proceed if bridging therapy induces a complete response prior to CAR T administration? (Please select ONE response)**
- Proceed with planned CAR T therapy regardless of complete response—59%
 - Do not proceed with CAR T if patient achieves MRD (negative) complete response—24%
 - Do not proceed with CAR T if patient achieves any complete response—12%
 - Not Applicable—6%
- 5. If lymphodepletion using fludarabine is not possible due to patient renal function, how would you proceed? (Please select ONE response)**
- Do not proceed with CAR T therapy—24%
 - Proceed with CAR T therapy, omit lymphodepletion
 - Proceed with CAR T therapy, use cytoxin alone—76%
- 6. If a patient with CRS does not respond to treatment with tocilizumab and steroids, how would you proceed? (Please select ONE response)**
- Siltuximab—29%
 - Anakinra—59%
 - Depends on results of lab tests such as cytokine levels—12%
- 7. When do you use anti-seizure medication in the context of CAR T therapy? (Please select ONE response)**
- As prophylaxis at the time of CAR T administration—35%
 - At the onset of any neurotoxicity symptom—35%
 - Following diagnosis of seizure activity—12%
 - With grade 3 or higher neurotoxicity—6%
 - Persistent grade 2 or higher neurotoxicity—6%
 - Not Applicable—6%
- 8. Which of the following tests do you do to restage patients 1 month post-administration of CAR T therapy? (Choose all that apply)**
- Serologic study—94%
 - Urine protein study—71%
 - Bone marrow assessment—94%
 - PET



e. I do not restage following CAR T therapy—6%

9. When do you typically assess MRD status? (Please select ONE response)

- a. Prior to serological/urine CR status is achieved
- b. At the same time that serological/urine CR status is being tested—41%
- c. Following CR status by serological/urine test—47%
- d. At landmark analyses—6%
- e. Not Applicable—6%

10. Which of the following do you provide prophylactic therapy for following CAR T therapy? (Choose all that apply)

- a. Bacterial infection—70%
- b. Viral infection—88%
- c. Fungal infection—65%

11. When providing anti-infectious prophylaxis following CAR T therapy, how long do you provide prophylaxis? (Choose all that apply)

- a. A fixed duration—24%
- b. Until blood count recovers—65%

12. When using G-CSF with CAR T therapy, under what circumstances do you use it? (Please select ONE response).

- a. At a fixed time period (specify time period) _____
- b. If patient is neutropenic—35%
- c. If patient develops neutropenic fever
- d. If patient develops neutropenia and has an active infection—12%
- e. I do not regularly use G-CSF during CAR T therapy—18%
- f. Other (please specify) _____

13. What are your criteria for treatment of CAR T patients with IVIG supplementation? (Please select ONE response).

- a. IgG below 400 mg/dL—47%
- b. IgG below 400 mg/dL AND severe infection—12%
- c. IgG below 400 mg/dL AND multiple infections—24%
- d. Other—12%
- e. Not Applicable—6%

14. Which of the following would cause you to exclude a patient from CAR T therapy (Choose all that apply)

- a. Renal failure and on hemodialysis—76%
- b. Active plasma cell leukemia (no CNS assessment performed)—41%



- c. Active plasma cell leukemia (CNS assessment)—35%
- d. Active CNS involvement—70%
- e. History of CNS involvement—6%

15. Which of the following would you consider in conjunction with CAR T therapy? (Choose all that apply)

- a. Etoposide—12%
- b. Cyclophosphamide—100%
- c. Anti-thymocyte globulin (ATG)—6%

16. What do you consider to be required neurologic testing prior to CAR T therapy?

- a. Yes always, with a brain MRI—35%
- b. Yes always, with testing tools per treating physician—17%
- c. Not necessary unless determined so by treating physician—41%
- d. Not Applicable—6%

17. Do you routinely employ EEG as part of neurological testing prior to CAR T therapy?

- a. Yes
- b. No—100%

18. How should cerebral edema during CAR T therapy be managed?

- a. Mannitol—6%
- b. Continued EEG monitoring
- c. Continued ICP monitoring—6%
- d. A, B and C—35%
- e. Per treating physician judgement—41%
- f. High-dose steroids—6%

19. Should patients with have persistent detectable systemic M protein with negative bone marrow and PET be managed differently versus patients in CR by IMWG criteria?

- a. Yes—94%
- b. No—6%

20. How often should PET or other imaging be performed after CAR T therapy?

- a. Every 3 months for 1 year then every 6 months up to 2 year—23%
- b. Every 6 months until year 3—12%
- c. Per treating physician preference—12%
- d. Once to confirm CR and then only as clinically indicated—47%
- e. Not Applicable—6%



- 21. Would you consider additional tests such as serum circulating BCMA for BCMA targeting CAR T to follow disease status after CAR T therapy?**
- Yes—59%
 - No—41%
- 22. Are current assays to quantify BCMA expression sufficiently robust?**
- Yes—12%
 - No—88%
- 23. Is soluble BCMA a marker of disease relapse?**
- Yes—59%
 - No—41%
- 24. How should relapse following CAR T cell therapy be treated?**
- Similar to other episodes of relapse—35%
 - With continued immune-based therapy—29%
 - With another BCMA-directed therapy
 - Only at clinically significant relapse—18%
 - Other—18%
- 25. Should patients be evaluated for an anti-CAR T cell immune response following relapse?**
- Yes—82%
 - No—12%
- 26. Should patients ever be retreated with the same CAR T cell product following relapse?**
- Yes—23%
 - No, never—6%
 - Yes, but only if there was a CR and response of > 3 months—47%
 - Other—25%
- 27. Should CAR-T cell dose be titrated based on disease burden?**
- Yes—29%
 - No—71%
- 28. Should vaccination decisions post-CAR T cell therapy be based on serology titers? (obtained after discontinuation of IVIG therapy >2 months)**
- Yes—59%
 - No—41%
- 29. At what time point should serology titers be obtained after vaccination?**
- 3 months after vaccination—29%
 - 6 months after vaccination—53%



c. Other—18%

30. If lymphodepletion with fludarabine is not possible as part of the usual Fl/Cy regimen, would you feel comfortable using cyclophosphamide alone?

a. Yes—73%

b. No—27%

31. How would you proceed if bridging therapy induces a complete response prior to CAR-T administration? (Please select ONE response)

a. Proceed with planned CAR-T therapy regardless of complete response—87%

b. Do not proceed with CAR-T if patient achieves any complete response—13%

32. What is your preferred regimen for patients with grade 2 CRS?

a. Tocilizumab + steroids—73%

b. Tocilizumab alone—27%

c. IL-1 blockade

d. Other (please specify)

33. During CAR T therapy do you recommend viral prophylaxis?

a. Yes—93%

b. No—7%

34. For what duration do you maintain viral prophylaxis?

a. Through the treatment period

b. Through the treatment period and the neutropenic period—20%

c. Through the treatment period, the neutropenic period and an additional 6 to 12 months—68%

d. I do not recommend viral prophylaxis—6%

e. Never stop—6%

35. During CAR T therapy do you recommend fungal prophylaxis?

a. Yes—67%

b. No—33%

36. For what duration do you maintain fungal prophylaxis?

a. Through the treatment period—6%

b. Through the treatment period and the neutropenic period—60%

c. Through the treatment period, the neutropenic period and an additional 6 to 12 months

d. I do not recommend fungal prophylaxis—28%



- e. Only if persistently neutropenic—6%

37. During CAR T therapy do you recommend *Pneumocystis jirovecii* pneumonia (PcP) prophylaxis?

- a. Yes—80%
- b. No—20%

38. For what duration do you recommend *Pneumocystis jirovecii* pneumonia (PcP) prophylaxis?

- a. Through the treatment period—6%
- b. Through the treatment period and the neutropenic period
- c. Through the treatment period, the neutropenic period and an additional 6 to 12 months—36%
- d. I do not recommend PCP prophylaxis—21%
- e. Other—37%

39. During CAR T therapy do you recommend prophylaxis against other bacterial infections?

- a. Yes—53%
- b. No—47%

40. For what duration do you recommend prophylaxis against other bacterial infections?

- a. Through the treatment period
- b. Through the treatment period and the neutropenic period—60%
- c. Through the treatment period, the neutropenic period and an additional 6 to 12 months
- d. I do not recommend prophylaxis against other bacterial infections—40%
- e. Other (specify)
- f.

Antibody-drug conjugate

1. How should ADC therapy be used in patients who have previously received T-cell redirection therapy? (Please select ONE response)

- a. ADC directed to the same target as T cell redirection—12%
- b. ADC directed to an alternate target—65%
- c. Other—23%

2. Which of the following factors influences your decision NOT to administer ADCs to a patient with multiple myeloma? (Choose all that apply)

- a. Renal failure—47%



- b. Hepatic impairment—65%
- c. Chronic hepatitis B infection (medicated)—6%
- d. Chronic hepatitis B infection (unmedicated)—35%
- e. Plasma cell leukemia diagnosis—29%
- f. Would consider all patients—6%