

Solitary and Extramedullary Plasmacytoma

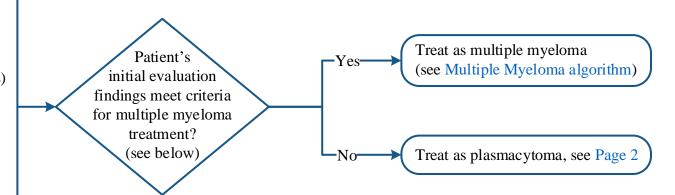
Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

Note: Consider Clinical Trials as treatment options for eligible patients.

INITIAL EVALUATION

- History and physical
- CBC with differential, BUN, creatinine, electrolytes, albumin, LDH, calcium, beta-2-microglobulin, serum quantitative immunoglobulins, serum protein electrophoresis (SPEP), serum immunofixation (SIFE), and serum free light chains (sFLC) including involved:uninvolved sFLC ratio
- 24-hour urine protein electrophoresis (UPEP) and urine immunofixation (UIFE)
- Bone marrow biopsy and aspirate with flow cytometry
- PET/CT of whole body or MRI of whole body
- If PET/CT of whole body or MRI of whole body is unavailable, then perform skeletal survey and MRI of the cervical, thoracic, lumbar and sacral spine. Consider CT or MRI of the affected area.
- In select settings, other imaging studies may be considered, such as ultrasound for superficial masses
- Lifestyle risk assessment¹

TREATMENT



Criteria for multiple myeloma treatment:

- Anemia, hypercalcemia, renal failure due to multiple myeloma and/or
- Bony lytic lesions due to multiple myeloma in a skeletal survey **and/or** MRI of whole body and/or PET/CT of whole body **and/or**
- sFLC involved:uninvolved ratio > 100 and/or
- Greater than one focal lesions on MRI (each focal lesion must be 5 mm or more in size) and/or
- Percentage of clonal plasma cells is \geq 60% in the core biopsy by CD138 immunohistochemistry

Note: Treatment may be considered if percentage of clonal plasma cells is $\geq 10\%$ in the core biopsy by CD138 immunohistochemistry

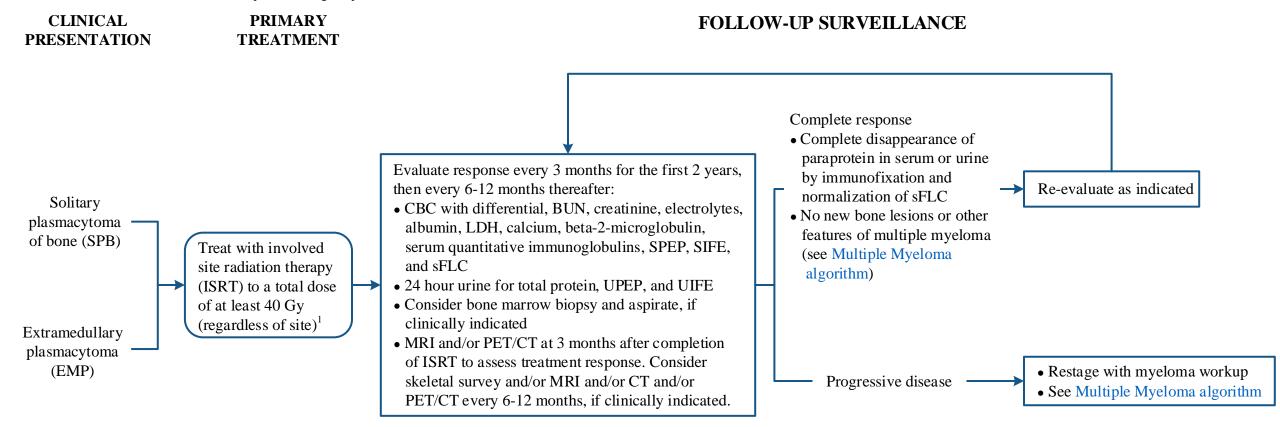
¹ See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice



Solitary and Extramedullary Plasmacytoma

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

Note: Consider Clinical Trials as treatment options for eligible patients.



¹ Historically, the recommended dose has been at least 40 Gy. More recent data suggests that lower doses may be sufficient. Refer to suggested readings for data regarding ISRT dose.



Solitary and Extramedullary Plasmacytoma

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

SUGGESTED READINGS

- Cavo, M., Terpos, E., Nanni, C., Moreau, P., Lentzsch, S., Zweegman, S., . . . Zamagni, E. (2017). Role of 18 F-FDG PET/CT in the diagnosis and management of multiple myeloma and other plasma cell disorders: A consensus statement by the International Myeloma Working Group. *The Lancet Oncology*, 18(4), e206-e217. https://doi.org/10.1016/S1470-2045(17)30189-4
- Dimopoulos, M., Moulopoulos, L., Maniatis, A., & Alexanian, R. (2000). Solitary plasmacytoma of bone and asymptomatic multiple myeloma. *Blood*, *96*(6), 2037-2044. https://doi.org/10.1182/blood.V96.6.2037
- Liebross, R., Ha, C., Cox, J., Weber, D., Delasalle, K., & Alexanian, R. (1999). Clinical course of solitary extramedullary plasmacytoma. *Radiotherapy and Oncology*, 52(3), 245-249. https://doi.org/10.1016/S0167-8140(99)00114-0
- Mendenhall, C., Thar, T., & Million, R. (1980). Solitary plasmacytoma of bone and soft tissue. *International Journal of Radiation Oncology, Biology, Physics*, 6(11), 1497-1501. https://doi.org/10.1016/0360-3016(80)90006-1
- Ozsahin, M., Tsang, R., Poortmans, P., Belkacémi, Y., Bolla, M., Dinçbas, F., . . . Zouhair, A. (2006). Outcomes and patterns of failure in solitary plasmacytoma: A multicenter Rare Cancer Network study of 258 patients. *International Journal of Radiation Oncology, Biology, Physics*, 64(1), 210-217. https://doi.org/10.1016/j.ijrobp.2005.06.039
- Reed, V., Shah, J., Medeiros, L., Ha, C., Mazloom, A., Weber, D., . . . Dabaja, B. (2011). Solitary plasmacytomas. Cancer, 117(19), 4468-4474. https://doi.org/10.1002/cncr.26031
- Soutar, R., Lucraft, H., Jackson, G., Reece, A., Bird, J., Low, E., & Samson, D. (2004). Guidelines on the diagnosis and management of solitary plasmacytoma of bone and solitary extramedullary plasmacytoma. *British Journal of Haematology*, 124(6), 717-726. https://doi.org/10.1111/j.1365-2141.2004.04834.x
- Tsang, R., Gospodarowicz, M., Pintilie, M., Bezjak, A., Wells, W., Hodgson, D., & Stewart, A. (2001). Solitary plasmacytoma treated with radiotherapy: impact of tumor size on outcome. *International Journal of Radiation Oncology, Biology, Physics*, 50(1), 113-120. https://doi.org/10.1016/S0360-3016(00)01572-8
- Weber, D. (2005). Solitary bone and extramedullary plasmacytoma. *American Society of Hematology Education Program Book*, 2005(1), 373-376. https://doi.org/10.1182/asheducation-2005.1.373
- Wilder, R., Ha, C., Cox, J., Weber, D., Delasalle, K., & Alexanian, R. (2002). Persistence of myeloma protein for more than one year after radiotherapy is an adverse prognostic factor in solitary plasmacytoma of bone. *Cancer*, 94(5), 1532-1537. https://doi.org/10.1002/cncr.10366



MD Anderson Solitary and Extramedullary Plasmacytoma

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Myeloma Center providers at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

> Bouthaina Shbib Dabaja, MD (Radiation Oncology) Wendy Garcia, BS Jillian R. Gunther, MD, PhD (Radiation Oncology) Elisabet E. Manasanch, MD (Lymphoma/Myeloma)¹ Chelsea Pinnix, MD, PhD (Radiation Oncology) Donna M. Weber, MD (Lymphoma/Myeloma) Milena Zhang, PharmD[•]

[†]Core Development Team Leads

^{*}Clinical Effectiveness Development Team