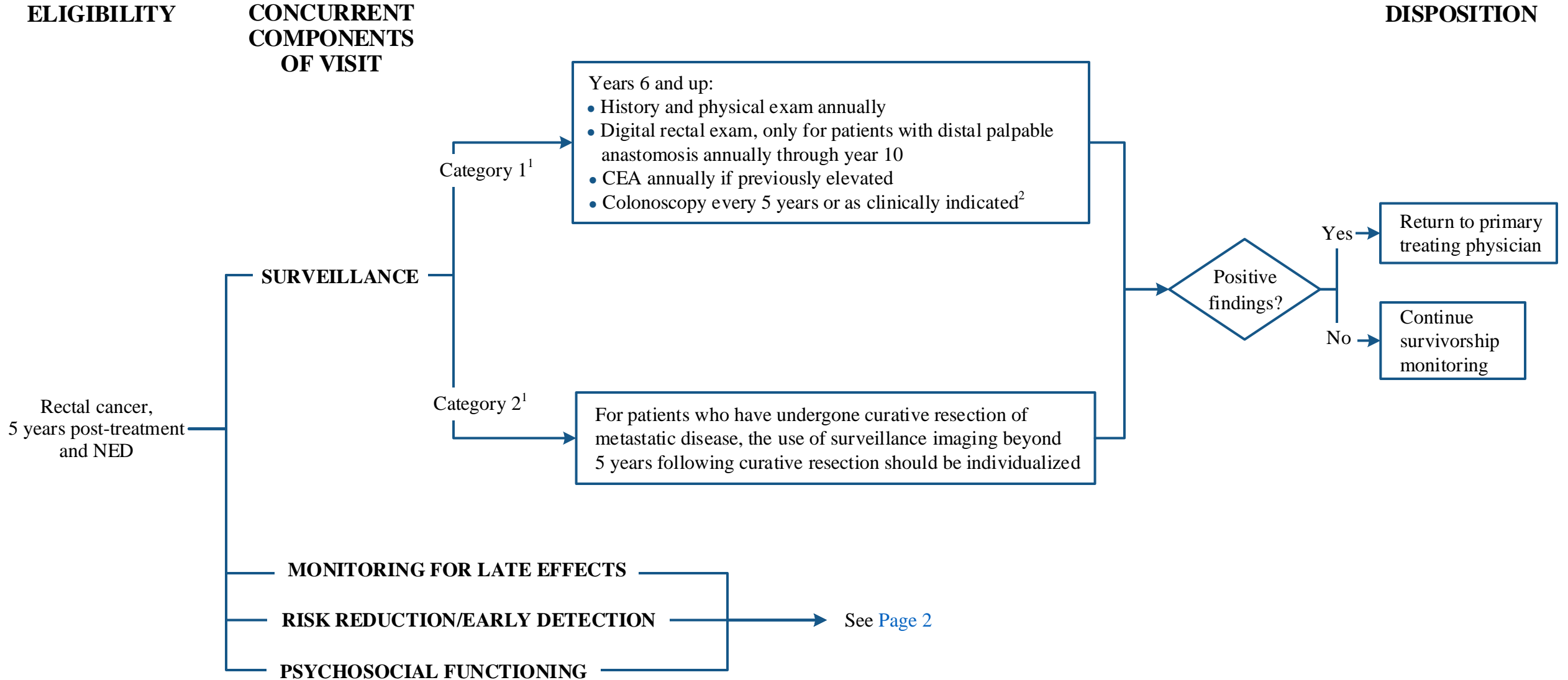


Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional 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.



NED = no evidence of disease

<sup>1</sup> **Category 1:** Localized, Stages I – III

**Category 2:** Metastatic, Stage IV

<sup>2</sup> The recommended screening intervals for individuals with adenomatous polyps on most recent colonoscopy, genetic predisposition to colon cancer or a history of inflammatory bowel disease can be found in the [Colorectal Cancer Screening Algorithm](#)

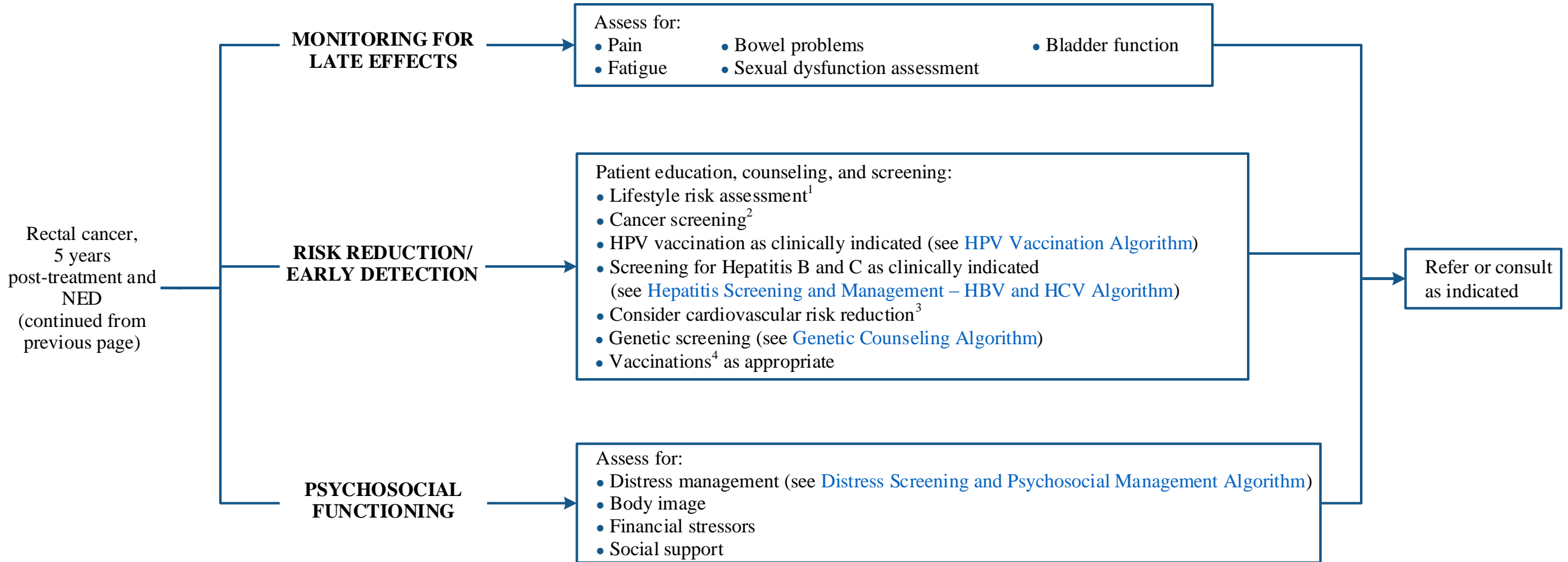
**Note:** Clinical risk is based on preoperative staging (clinical stage) vs. pathologic staging, which is based on the post-operative tumor specimen (for patients that were unable to receive neoadjuvant therapy)

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.

**ELIGIBILITY**

**CONCURRENT COMPONENTS OF VISIT**

**DISPOSITION**



NED = no evidence of disease

<sup>1</sup> See [Physical Activity, Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

<sup>2</sup> Includes [breast](#), [cervical](#) (if appropriate), [liver](#), [lung](#), [pancreatic](#), [prostate](#), and [skin cancer screening](#)

<sup>3</sup> Consider use of Vanderbilt's [ABCDE's approach to cardiovascular health](#)

<sup>4</sup> Based on [Centers for Disease Control and Prevention \(CDC\) guidelines](#)

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

- Baca, B., Beart Jr, R. W., and Etzioni, D. A. (2011). Surveillance after colorectal cancer resection: a systematic review. *Diseases of the Colon and Rectum*, 54(8), 1036-1048.
- Cairns, S. R., Scholefield, J. H., Steele, R. J., Dunlop, M. G., Thomas, H. J., Evans, G. D., ... & Lucassen, A. (2010). Guidelines for colorectal cancer screening and surveillance in moderate and high risk groups (update from 2002). *Gut*, 59(5), 666-689.
- Centers for Disease Control and Prevention. (2018, March 5). *Recommended immunization schedule for adults aged 19 years or older, United States 2018*. Retrieved from <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>
- Engstrom, P. F., Arnoletti, J. P., Benson, A. B., Chen, Y. J., Choti, M. A., Cooper, H. S., ... & Fakih, M. G. (2009). Rectal cancer. *Journal of the National Comprehensive Cancer Network*, 7(8), 838-881.
- Kawamura, Y. J., Tokumitsu, A., Mizokami, K., Sasaki, J., Tsujinaka, S., & Konishi, F. (2010). First alert for recurrence during follow-up after potentially curative resection for colorectal carcinoma: CA 19-9 should be included in surveillance programs. *Clinical Colorectal Cancer*, 9(1), 48-51.
- Kim, T. H., Chang, H. J., Kim, D. Y., Jung, K. H., Hong, Y. S., Kim, S. Y., ... & Jeong, S. Y. (2010). Pathologic nodal classification is the most discriminating prognostic factor for disease-free survival in rectal cancer patients treated with preoperative chemoradiotherapy and curative resection. *International Journal of Radiation Oncology\* Biology\* Physics*, 77(4), 1158-1165.
- Kobayashi, H., Mochizuki, H., Morita, T., Kotake, K., Teramoto, T., Kameoka, S., ... & Maeda, K. (2009). Timing of relapse and outcome after curative resection for colorectal cancer: a Japanese multicenter study. *Digestive Surgery*, 26(3), 249-255.
- Lange, M., Marijnen, C. A. M., Maas, C. P., Putter, H., Rutten, H. J., Stiggelbout, A. M., ... & Cooperative Clinical Investigators of the Dutch. (2009). Risk factors for sexual dysfunction after rectal cancer treatment. *European Journal of Cancer*, 45(9), 1578-1588.
- Ode, K., Patel, U., Virgo, K. S., Audisio, R. A., & Johnson, F. E. (2009). How initial tumor stage affects rectal cancer patient follow-up. *Oncology Reports*, 21(6), 1511-1517.
- Park, J., Neuman, H. B., Weiser, M. R., & Wong, W. D. (2010). Randomized clinical trials in rectal and anal cancers. *Surgical oncology clinics of North America*, 19(1), 205-223.
- Park, I. J., You, Y. N., Agarwal, A., Skibber, J. M., Rodriguez-Bigas, M. A., Eng, C., ... & Hu, C. Y. (2012). Neoadjuvant treatment response as an early response indicator for patients with rectal cancer. *Journal of Clinical Oncology*, 30(15), 1770-1776.
- Salloum, R. G., Hornbrook, M. C., Fishman, P. A., Ritzwoller, D. P., O'Keeffe Rossetti, M. C., & Elston Lafata, J. (2012). Adherence to surveillance care guidelines after breast and colorectal cancer treatment with curative intent. *Cancer*, 118(22), 5644-5651.
- Steele, S. R., Chang, G. J., Hendren, S., Weiser, M., Irani, J., Buie, W. D., & Rafferty, J. F. (2015). Practice guideline for the surveillance of patients after curative treatment of colon and rectal cancer. *Diseases of the Colon & Rectum*, 58(8), 713-725.
- You, Y. N., Habiba, H., Chang, G. J., Rodriguez-bigas, M. A., & Skibber, J. M. (2011). Prognostic value of quality of life and pain in patients with locally recurrent rectal cancer. *Annals of Surgical Oncology*, 18(4), 989-996.
- Vanderbilt Cardio-Oncology Program. (2017). *Know Your ABCDE's*. Retrieved from <http://www.cardioonc.org/2017/08/29/know-your-abcs/>
- Velenik, V. (2010). Post-treatment surveillance in colorectal cancer. *Radiology and Oncology*, 44(3), 135-141.

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 survivorship algorithm is based on majority expert opinion of the Colorectal Survivorship work group at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

Therese B. Bevers, MD (Clinical Cancer Prevention)  
George J. Chang, MD, MS (Surgical Oncology)  
Elise Cook, MD (Clinical Cancer Prevention)  
Robin Coyne, APRN, FNP-BC (CPC Provider Income & Activity)  
Joyce Dains, DrPH, APRN, FNP-BC (Department of Nursing)  
Suzanne Day, APRN, FNP-BC (CPC Provider Income & Activity)  
Cathy Eng, MD (GI Medical Oncology)  
Shonice Holdman, MBA ♦  
Tiffany Jackson, APRN, FNP-BC (CPC Provider Income & Activity)  
Marita Lazzaro, APRN, ANP-BC (CPC Provider Income & Activity)  
Paula Lewis-Patterson, DNP, RN, NEA-BC (Cancer Survivorship)  
Ana Nelson, APRN, FNP-BC (CPC Provider Income & Activity)  
Lonzetta Newman, MD (Clinical Cancer Prevention)  
Tilu Ninan, APRN, ANP-BC (CPC Provider Income & Activity)  
Aki Ohinata, PA-C (GI Medical Oncology)  
Amy Pai, PharmD ♦

♦ Clinical Effectiveness Development Team