

FIGURE 4.

PATIENT EDUCATION TIP SHEET: RENAL CARE PLAN FOR PATIENTS WITH MM

HISTORY AND PHYSICAL EXAMINATIONS

- Regular review of medications, changes in medical history, and physical examination
- Call your primary care provider for annual physical examination.
- Your hematology-oncology practitioner will review medications at each visit.

BLOOD TESTS

- Perform CBC, CMP, SPEP, SIFE, 24-hour UPEP, UIFE, LDH, serum FLC assay, and beta-2 microglobulin every three months. Special tests for bone loss may be ordered on an individual basis.
- Contact your treating hematology-oncology provider for monitoring.

BONE IMAGING

- Long-term or late effects of chronic kidney disease include osteoporosis.
- Talk with your primary care provider or hematology/oncology provider about bone density scans to monitor your bone health.

URINALYSIS

- Check annually if not on pamidronate or zoledronic acid. Check quarterly if you are receiving one of these drugs.
- Contact your treating hematology-oncology provider for monitoring.

NEPHROLOGIST OR KIDNEY SPECIALIST FOLLOW-UP

- See nephrologist annually or as needed if change in creatinine or GFR occurs.
- Call your nephrologist or kidney specialist.

DIAGNOSTIC IMAGING

- Avoid the use of IV dye or contrast with PET, CT, or MRI scans.
- Any provider may order one of these tests. You should alert whoever is ordering these tests that you have a diagnosis of MM and that IV dye may not be safe.

MEDICATIONS

- Avoid the use of NSAIDs, such as ibuprofen. Many medications and over-the-counter supplements (including Chinese herbs) can worsen renal impairment, but others can be given safely at lower doses.

- Bisphosphonates (zoledronic acid and pamidronate) are often used to prevent bone fractures and can be used with caution. Your provider should check your kidney function before each dose.
- ESAs, such as darbepoetin alfa and erythropoietin, are used to treat anemia. These must be used with caution, and a CBC must be obtained before each dose.
- All medications should be reviewed with your provider before starting, including herbal and over-the-counter medications.

DOSE ADJUSTMENTS

- Tell your providers if you have a decrease in kidney functioning. Certain medications to treat your cancer or other health conditions, such as antibiotics, will require a dose reduction or change in the way the medicines are given (e.g., days of the week).
- Contact your healthcare team for monitoring.

OTHER FACTORS

- Maintain adequate hydration; 2.5 liters of fluid per day is recommended. It is important to avoid dehydration, particularly during hot days or if you have a raised temperature.

CBC—complete blood count; CMP—comprehensive metabolic panel; CT—computed tomography; ESA—erythropoiesis-stimulating agent; FLC—free light chain; GFR—glomerular filtration rate; LDH—lactate dehydrogenase; MM—multiple myeloma; MRI—magnetic resonance imaging; NSAID—nonsteroidal anti-inflammatory drug; PET—positron-emission tomography; SIFE—serum immunofixation; SPEP—serum protein electrophoresis; UIFE—urine immunofixation; UPEP—urine protein electrophoresis

Note. From "Renal Complications in Multiple Myeloma and Related Disorders: Survivorship Care Plan of the International Myeloma Foundation Nurse Leadership Board," by B.M. Faiman, P. Mangan, J. Spong, & J.D. Tariman, 2011, *Clinical Journal of Oncology Nursing*, 15, pp. 71–72. Copyright 2011 by Oncology Nursing Society. Adapted with permission.