FAST FACTS AND CONCEPTS #360
THE SURPRISE QUESTION AS A PROGNOSTIC TOOL
Kate S. Jennings, MD[1], Sean Marks, MD[2], and Hillary D. Lum, MD, PhD[1,3]

Background: Clinicians have been encouraged to utilize the surprise question (SQ) -- "*Would I be surprised if this patient died within 12 months*?" – to identify patients at high 1-year mortality risk. When clinicians answer "No – I would NOT be surprised if this patient died within 12 months," the SQ may help clinicians identify patients with unmet palliative care needs who could benefit from advance care planning discussions and/or a palliative care referral (1). This *Fast Fact* reviews the clinical utility of the SQ.

Rationale of the SQ: As difficult as it is for clinicians to prognosticate accurately, multiple studies have shown that patients with incurable disease desire more prognostic information the sicker they get and prognosis is a major factor in preferences for rehospitalizations, life support, and CPR (2-4). Although, patients and surrogates often want *temporal prognostic predictions* (the clinician's estimated length of time he or she predicts the patient will live), clinicians are more accurate and willing to offer *probabilistic predictions* (the clinician's estimate, often in a percentage, of the chance of death in a set time frame, such as 1 year) (4-6). The SQ was designed as a clinical tool that generalist clinicians would utilize willingly and routinely to identify patients at risk of death in a year and thereby lead to more appropriate advance care planning, goals of care discussions, symptom management, and hospice referrals.

Effectiveness of the SQ: Although variations on the SQ have been described in the published literature including "*Would I be surprised if this patient died this hospitalization*?" or "*Would I be surprised if this patient died in 3 months*?", the SQ most commonly referred is "*Would I be surprised if this patient died within 12 months*?" This SQ has been studied in diverse populations, including a general inpatient setting (7), high-risk primary care clinic (8), pediatric patients (9), advanced kidney disease (10-12), cancer (13,14), acute surgical patients (15), emergency department settings (1,16), and nursing home settings (17). In general, the SQ has performed modestly well in identifying patients with a prognosis of < 1 year across these various patient populations (18,19). Notable findings from these studies include:
- A meta-analysis of the SQ among 26 studies across these patient populations found that it had a pooled accuracy of 75%, a sensitivity of 67% and specificity of 80% (18).
- "Yes" answers appear to be much more accurate than "No" answers. The predictive value of a "Yes" answer was 93%, while only 37% for a "No" answer (18). This means that the SQ is likely better designed to identify patients who will live more than a year vs the patients who live less a year. It also suggests that there is "false positives" are relatively common when clinicians answer "No" to the SQ.
- The SQ may be slightly more accurate for cancer patients (pooled accuracy 79%) and renal patients (76%) vs other disease groups (72%) (18). This may reflect a more predictable illness trajectory in cancer and renal disease. See *Fast Fact* #326 for more information on illness trajectories.
- In most studies, the SQ was utilized as one aspect of a broad prognostic assessment which included clinician gestalt and/or other prognostic tools. Hence, used in isolation, its accuracy is unclear (18).

Implementing the SQ Into Clinical Practice: The SQ can be helpful in identifying patients at risk of medical decline and death in a certain time frame when used as part of a larger prognostic assessment (19). Yet, considering the relatively high false positive rate of a "No" answer, it is not established if the SQ is a cost-effective tool nor an effective way to trigger a palliative care consultation on its own. A consensus panel of experts suggested that a "No" answer trigger generalist clinicians to perform a primary palliative care assessment or screening for unmet palliative care needs (20). Sentinel medical events like hospitalization, decline in performance status, or disease progression are reasonable triggers to implement the SQ into clinical practice. Note templates, medical rounding tools, and electric medical record prompts are potential system-based approaches to accomplish this. Reasonable components of the primary palliative care assessment triggered by a "No" include (20):
- Assessment for distressing physical, psychological, social, or spiritual concerns.
- Identification of whether the patient completed an advance directive such as a health care power of attorney that is available in the medical records.
- Assessment of patient, family, and/or surrogate's understanding of the underlying illness, treatment options, and prognostic trajectory.

- Assessment of decision-making capacity.
- Engagement in honest conversations about prognosis and medical expectations.
- Elicitation of the patient's care preferences and values.
- Consideration of whether a hospice referral would be appropriate.
- Consideration of whether a palliative care consultation may be beneficial.

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Author Affiliations: [1]University of Colorado School of Medicine, Aurora, CO, USA; [2]Medical College of Wisconsin, Milwaukee, WI; [3]Veterans Affairs Eastern Colorado Geriatric Research Education and Clinical Center, Denver, CO, USA
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