Clinical Decision Support

Objective
Use clinical decision support to improve performance on high-priority health conditions.

Measures
EPs must satisfy both of the following measures in order to meet the objective:
1. **Measure 1:** Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an EP’s scope of practice or patient population, the clinical decision support interventions must be related to high-priority health conditions.
2. **Measure 2:** The EP has enabled and implemented the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.

Exclusion
For the second measure, any EP who writes fewer than 100 medication orders during the EHR reporting period.

Table of Contents
- Definition of Terms
- Attestation Requirements
- Additional Information
- Regulatory References
- Certification and Standards Criteria

Definition of Terms
**Clinical Decision Support** – HIT functionality that builds upon the foundation of an EHR to provide persons involved in care processes with general and person-specific information, intelligently filtered and organized, at appropriate times, to enhance health and health care.

Attestation Requirements
**YES/NO/EXCLUSION**

- **MEASURE 1:** EPs must attest YES to implementing five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period.
- **MEASURE 2:** EPs must attest YES to enabling and implementing the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.
- **EXCLUSION:** For the second measure, any EP who writes fewer than 100 medication orders during the EHR reporting period.
Additional Information
- If there are limited CQMs applicable to an EP’s scope of practice, the EP should implement CDS interventions that he or she believes will drive improvements in the delivery of care for the high-priority health conditions relevant to their specialty and patient population.
- Drug-drug and drug-allergy interaction alerts are separate from the 5 clinical decision support interventions and do not count toward the 5 required for this first measure.

Regulatory References
- This objective may be found in Section 42 of the code of the federal register at 495.22 (e)(2)(i) and (ii). For further discussion please see 80 FR 62795.
- In order to meet this objective and measure, an EP must use the capabilities and standards of CEHRT at 45 CFR 170.314(a)(8) and (a)(2).

Certification and Standards Criteria
Below is the corresponding certification and standards criteria for electronic health record technology that supports achieving the meaningful use of this objective.

<table>
<thead>
<tr>
<th>Certification Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>§170.314(a)(8) Clinical decision support</td>
</tr>
</tbody>
</table>

- (i) Evidence-based decision support interventions. Enable a limited set of identified users to select (i.e., activate) one or more electronic clinical decision support interventions (in addition to drug-drug and drug-allergy contraindication checking) based on each one and at least one combination of the following data:
  - (A) Problem list;
  - (B) Medication list;
  - (C) Medication allergy list;
  - (D) Demographics;
  - (E) Laboratory tests and values/results; and
  - (F) Vital signs.
- (ii) Linked referential clinical decision support.
  - (A) EHR technology must be able to:
    a. Electronically identify for a user diagnostic and therapeutic reference information; or
    b. Electronically identify for a user diagnostic and therapeutic reference information in accordance with the standard specified at § 170.204(b) and the implementation specifications at § 170.204 (b)(1) or (2).
  - (B) For paragraph (a)(8)(ii)(A) of this section, EHR technology must be able to electronically identify for a user diagnostic or therapeutic reference information based on each one and at least one combination of the following data referenced in paragraphs (a)(8)(i)(A) through (F) of this section:
- (iii) Clinical decision support configuration.
  - (A) Enable interventions and reference resources specified in paragraphs (a)(8)(i) and (ii) of this section to be configured by a limited set of identified users (e.g., system administrator) based on a user’s role.
  - (B) EHR technology must enable interventions to be electronically triggered:
a. Based on the data referenced in paragraphs (a)(8)(i)(A) through (F) of this section.

b. When a patient’s medications, medication allergies, and problems are incorporated from a transition of care/referral summary received pursuant to paragraph (b)(1)(iii) of this section.

c. Ambulatory setting only. When a patient’s laboratory tests and values/results are incorporated pursuant to paragraph (b)(5)(i)(A)(1) of this section.

(iv) Automatically and electronically interact. Interventions triggered in accordance with paragraphs (a)(8)(i) through (iii) of this section must automatically and electronically occur when a user is interacting with EHR technology.

(v) Source attributes. Enable a user to review the attributes as indicated for all clinical decision support resources:

(A) For evidence-based decision support interventions under paragraph (a)(8)(i) of this section:
   a. Bibliographic citation of the intervention (clinical research/guideline);
   b. Developer of the intervention (translation from clinical research/guideline);
   c. Funding source of the intervention development technical implementation; and
   d. Release and, if applicable, revision date(s) of the intervention or reference source.

(B) For linked referential clinical decision support in paragraph (a)(8)(ii) of this section and drug-drug, drug-allergy interaction checks in paragraph (a)(2) of this section, the developer of the intervention, and where clinically indicated, the bibliographic citation of the intervention (clinical research/guideline).

170.314 (a)(2)

Drug drug, drug allergy interaction checks

(i) Interventions. Before a medication order is completed and acted upon during computerized provider order entry (CPOE), interventions must automatically and electronically indicate to a user drug-drug and drug-allergy contraindications based on a patient’s medication list and medication allergy list.

(ii) Adjustments.

(A) Enable the severity level of interventions provided for drug-drug interaction checks to be adjusted.

(B) Limit the ability to adjust severity levels to an identified set of users or available as a system administrative function.
<table>
<thead>
<tr>
<th>Standards Criteria</th>
<th>Reference source</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 170.204(b) Reference source</td>
<td>HL7 Version 3 Standard: Context-Aware Retrieval Application (Infobutton) (incorporated by reference in § 170.299).</td>
</tr>
</tbody>
</table>
| § 170.204 (b)(1) or (2). Implementation specifications | HL7 Version 3 Standard: Context-Aware Retrieval Application (Infobutton) (incorporated by reference in § 170.299).  