



## Reading Levels That Trigger Alerts to Patients

**Lowest Valid Reading** – Lowest reading that is possible for Annie to accept.

**Highest Valid Reading** – Highest reading that is possible for Annie to accept.

**Critical Low Level Alert** – Reading to trigger a Critical Low Level Alert Message to patient. Valid readings at or below this range are considered to be very low.

**Critical High Level Alert** – Reading to trigger a Critical High Level Alert Message to patient. Valid readings at or above this range are considered to be very high.

**Low Level Alert** – Reading to trigger a Low Level Alert Message to patient. Valid readings at or below this range are considered to be low.

**High Level Alert** – Reading to trigger a High Level Alert Message to patient. Valid readings at or above this range are considered to be high.

### Examples:

**Patient sends systolic 200** – Annie takes reading, sends Critical High Level Alert Message.

**Patient sends systolic 275** – Annie send text that this is not a valid reading, asks for a repeat reading (Valid reading must be between 70 and 270).

The screenshot displays the 'Readings/Alerts Settings' interface for Blood Pressure. It is organized into three main sections: 'Reading Parameter One', 'Set Critical Low & High Level Alert', and 'Set Low & High Level Alert'. Each section includes input fields for measurement type, keywords, and specific alert thresholds (Lowest Valid Reading, Highest Valid Reading, Critical Low Level Alert, and High Level Alert). Below each threshold field is a text area for a custom message to the patient. The 'Reading Parameter One' section is for Systolic (mmHg) with a note that messages will be sent to the Veteran. The 'Set Critical Low & High Level Alert' section has a 'Critical Low Level Alert' threshold of 80 and a 'Critical High Level Alert' threshold of 180. The 'Set Low & High Level Alert' section has a 'Low Level Alert' threshold of 90 and a 'High Level Alert' threshold of 140. Character counts for the message fields are 94, 8, 9, and 3 respectively.

**Message for Valid Reading** – Message to patient when reading does not trigger any Alert Message.

### Decreasing and Increasing Values Alert

- For Decreasing and Increasing Value Alerts, type in the amount of decrease or increase over a period of time (days, weeks or months). If the specified decrease/increase within the specified time occurs, a designated message will be sent out. E.g., Blood Pressure increasing 20 points in 2 days will result in a designated significant alert sent.

The screenshot shows two side-by-side configuration panels. The left panel is titled 'Decreasing Values Alert' and contains a 'Decrease of' input field, a 'Time Period' input field with a dropdown arrow, and a 'Message for Decreasing Value Alert' text area. The right panel is titled 'Increasing Values Alert' and contains an 'Increase of' input field, a 'Time Period' input field with a dropdown arrow, and a 'Message for Increasing Value Alert' text area. Both text areas have a '160 characters remaining' indicator at the bottom right.

**Repetitive Values Alert** - For the Repetitive Values alerts, specify the alert type (high alert/low alert), the count/number of occurrences of that alert and the number of days over which, if the specified alert type and occurrences are reached, the designated message will be sent out. E.g., If a patient enters a high alert (Weight 215) 3 times in 10 days then the repetitive alert message will fire.

The screenshot shows a 'Repetitive Values' configuration form. It has three dropdown menus: 'Alert Level \*' set to 'High Alert', 'Count of Events \*' set to '2', and 'Count of Days \*' set to '14'. Below these is a 'Message \*' text area containing the text: 'Your High Alert Reading(Systolic(mmmHg)), has been 180 twice in the past 14 days. Please call your clinical care team to let them know. Annie'. A '20 characters remaining' indicator is at the bottom right.

#### Additional items to note:

- Because readings do NOT trigger alerts to a VA clinician or health care team, make sure all threshold levels are clinically relevant to the patient and that the messages and alerts you create tell your patient what to do if a reading is too low or too high.
- Only a Critical High Alert will fire if both Critical High and either repetitive, increasing or decreasing parameters are met.
- Firing of a repetitive alert will reset the baseline (timetable and starting value) using the last reading sent in.
- When the baseline is reset, the value will be that of the last reading that was received by Annie.
- The baselines, timing and value, will be reset whenever one of these alerts or a Critical High or Critical Low alert fires.
- In order to avoid confusion to the patient, Increasing Values alerts, Decreasing Values alerts and Repetitive Values alerts should only be used for one parameter of a protocol (e.g., weight, and when clinically relevant).
- It is possible for a patient's response to trigger more than one alert.
- If a response triggers a Critical High or Critical Low alert, that alert will fire without further determination of whether other alerts fire.

## Setting Alert Messages to Patients

- If patients send multiple readings that trigger a Patient Alert Message, Annie repeatedly sends the same message.
- Alert levels should be clinically relevant, so that Annie messages accurately inform patients about their readings.
- There is only one message for each reading, so messages should reference both parameters (see below).

Example Alert Messages to Patients Using the Blood Pressure Area:

### Critical High Level Alert

“Your BP is very high. The top number is 180 or more, or bottom number is 120 or more. Please contact your health care team about your BP. Thanks, Annie”

### Critical Low Level Alert

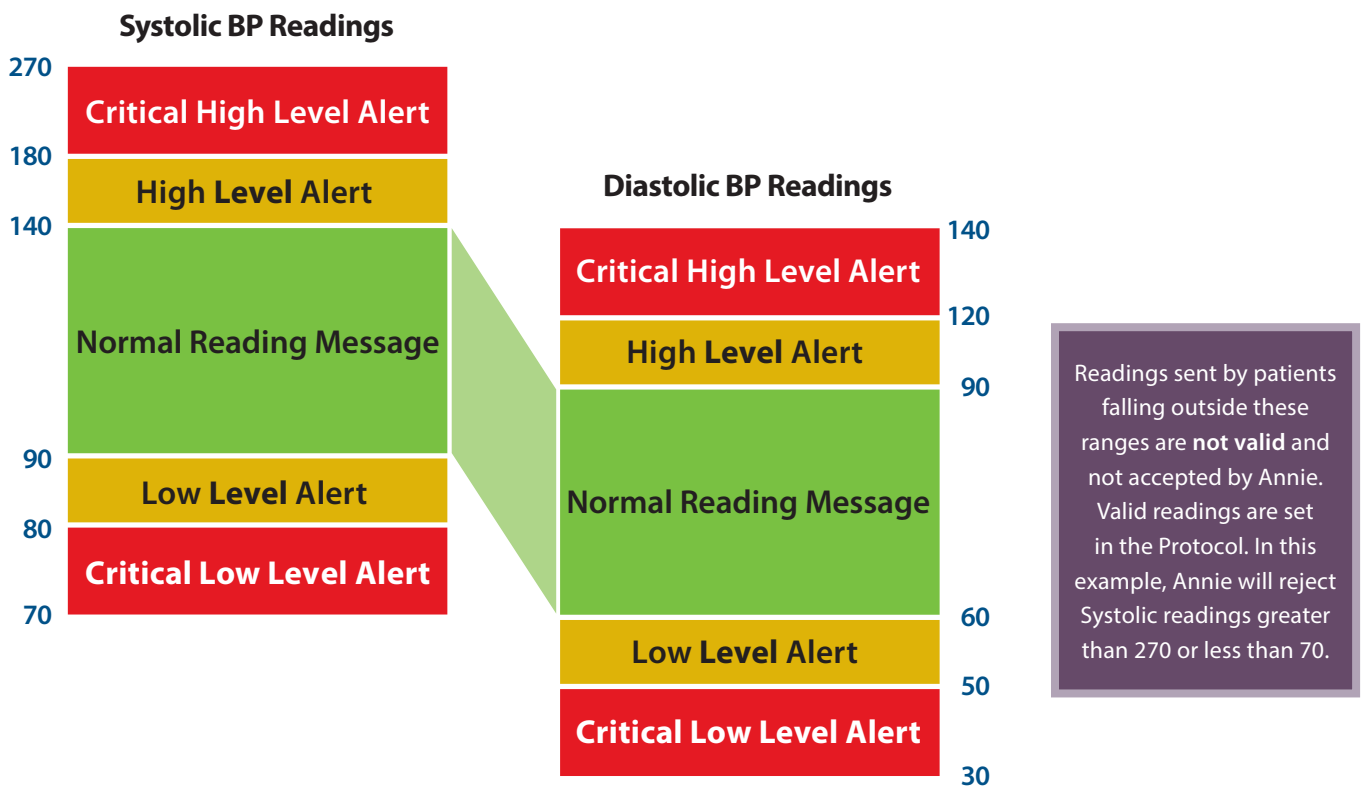
“Your BP is very low. The top number is 80 or less, or the bottom number is 50 or less. Please contact your health care team about your BP. Thanks, Annie”

### High Level Alert

“Your BP is high. Normal is usually less than 140 over less than 90. If your BP does not improve for 1 to 2 weeks, make sure your healthcare team knows. Annie”

### Low Level Alert

“Your BP is low. The top is 90 or less, or the bottom is 60 or less. If it does not improve or you are not feeling well, notify your health care team. Annie”



## Creating Service and Reminder Messages to Patients

**Service Messages** are requests from Annie that prompt a patient to track a reading.

- Readings from a patient must include a Keyword, which is an abbreviation of the reading (see below).
- Service Messages should always include the Keyword that is needed in the patient's response.

**Example:** "Hi, this is Annie. Please send your blood pressure to me in the following format: BP 120 80."

**Reminder Messages** are sent when a patient doesn't provide a reading in response to a Service Message.

- Reminder Messages should also include the Keyword that is needed in the patient's response.
- Reminders are not required but strongly recommended to prompt patients to submit data and receive responses.

**Example:** "Hi it's Annie again. I haven't received your BP reading yet. Please send me your reading in the following format: BP 120 80."

Keywords Needed for Readings (They are not case-sensitive)	
Blood Pressure	BP or BLOOD
Pulse Oximetry (SpO2)	OX or OXYGEN
Blood Glucose	BG, GLUCOSE or SUGAR
Glucose Before Eating	BGB or BEFORE
Glucose After Eating	BGA or AFTER
Weight	WE or WEIGHT
Caloric Intake	CAL or CALORIES
Amount of Exercise	EXERCISE
Temperature	TEMP
Pulse	PULSE