

UNDERSTANDING ALGORITHMS

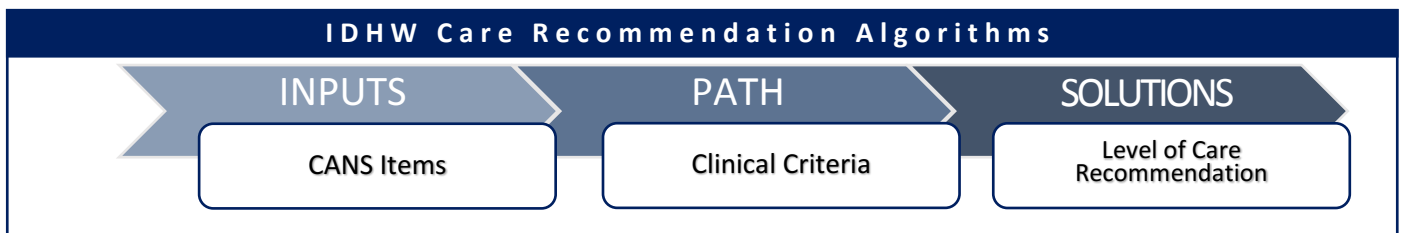
Algorithms are problem-solving rules used to arrive at a solution. Algorithms provide a consistent way to help make clinical decisions.

KEY COMPONENTS



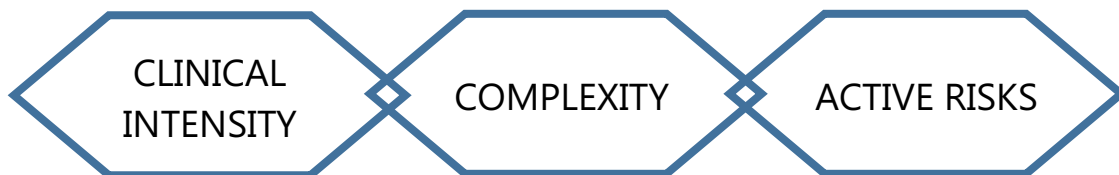
- **INPUTS** - Information, usually numbers used to make decisions
- **SOLUTIONS** - A series of clearly defined decision outcomes
- **PATH** - A defined path from the numbers to each possible solution

Idaho's Department of Health and Welfare has chosen to use algorithms to help clinicians make more consistent level of care decisions. This approach has been shown elsewhere to increase the likelihood that treatment will be successful. These algorithms use (a) CANS items as their inputs, (b) Levels of Care recommendations as their solutions, and (c) Clinical Criteria as the defined path to a specific level of care recommendation.



*This algorithm *does not override clinical expertise*. Care recommendations are made when the algorithm is run. Clinicians can override the algorithm's recommendation, once they have provided the clinical reason for doing so.

With the CANS, clinicians are also transparent about the CLINICAL CRITERIA used to make recommendations.



Intensity means the distress and urgency associated with a need. Increasing numbers in the CANS item ratings reflect this intensity.



Complexity refers to needs across items and domains.

- Addressing a need at home and school is more complex than just addressing a need at home
- Addressing psychosis and depression is more complex than just addressing depression

This is reflected in the level of care recommendation by the requirement for multiple clinical criteria to be met.

Active Risks to oneself or others indicate the need for intervention. They may also indicate that a person's ability to cope in healthy ways are currently absent or over-whelmed.

Clinical Criteria

This algorithm *does not override clinical expertise*. Level of care recommendations are made when the algorithm is run. Clinicians can override the algorithm's recommendation and recommend a higher or lower level of care, once they have provided the clinical reason for doing so.

In the table below, we see that higher intensity ratings across items (ratings of '3' vs. '2') prompt higher level of care recommendations.



| LEVEL OF CARE CRITERIA: <i>Intensity</i> | | | |
|--|---------------------------------------|---------------------------------------|-------------------|
| CANS Domain | ICS ³ | CFS ² | OTPT ¹ |
| Behavioral/Emotional Needs | At least one '3', or two or more '2's | At least one '3', or two or more '2's | One or more '2's |
| Functioning | At least one '3', or two or more '2's | At least one '3', or two or more '2's | One or more '2's |
| Risk Factors | At least one '3', or two or more '2's | One or more '2's | One or more '2's |

3-Intensive Community Supports (Intensive Care Coordination); 2-Use of Child and Family Team; 1-Typical Outpatient Care

In the table below, 'AND' indicates that **all** of these criteria must be met. 'OR' indicates that either criteria can be met. For a recommendation for ICS, each criteria has to be met; for OTPT, only 2 criteria have to be met.



| LEVEL OF CARE CRITERIA: <i>Complexity</i> | | | |
|---|---------------------------------------|---------------------------------------|------------------|
| CANS Domain | ICS | CFS | OTPT |
| Behavioral/Emotional Needs | At least one '3', or two or more '2's | At least one '3', or two or more '2's | One or more '2's |
| Functioning | At least one '3', or two or more '2's | At least one '3', or two or more '2's | One or more '2's |
| Risk Factors | At least one '3', or two or more '2's | One or more '2's | One or more '2's |

In the table below, increasing risk (Risk Factors Domain), is the third set of clinical criteria applied in making a care recommendation.



| LEVEL OF CARE CRITERIA: <i>Active Risks</i> | | | |
|---|---------------------------------------|------------------|------------------|
| CANS Domain | ICS | CFS | OTPT |
| Risk Factors | At least one '3', or two or more '2's | One or more '2's | One or more '2's |
| | REQUIRED | REQUIRED | OPTIONAL |

SUMMARY

Algorithms are designed to help us make consistent and transparent care decisions, based on the current intensity of needs, complexity of needs, and risks a person is experiencing. By using these algorithms, we are able to communicate clearly with each other, whether we are a youth, caregiver, health care provider, or administrator. Idaho will be carefully monitoring the training provided on algorithms and the effect of their use on the population health of Idaho's children. If you have questions about the use of the algorithms, please contact yes@dhw.idaho.gov.