



International Wound Infection Institute

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Table 3: Wound infection assessment tools

Assessment tool	Wound type	Description	Psychometric testing
ASEPSIS ¹	Developed for cardiac surgery but may be applied to other types of surgical wounds.	<ul style="list-style-type: none"> • A method of assessing wound healing that defines characteristics that are awarded points. • Includes objective assessment criteria. • Points are given for:^{1, 2} <ul style="list-style-type: none"> ○ Additional treatment. ○ Serous discharge. ○ Erythema. ○ Purulent exudate. ○ Separation of the deep tissues. ○ Isolation of bacteria. ○ Stay duration (time spent as an inpatient). 	<ul style="list-style-type: none"> • Sensitivity and specificity of a range of total ASEPSIS scores (score >10 to score >40) in predicting hospitalisation, antibiotic therapy and surgery are reported.² • Good inter-rater reliability.³
Clinical Signs and Symptoms Checklist (CSSC) ⁴	Variety of wound types.	<ul style="list-style-type: none"> • Includes 12 clinical signs and symptoms of infection. • Includes five classic signs/symptoms of wound infection. • Includes seven secondary signs and symptoms of wound infection. 	<ul style="list-style-type: none"> • Sensitivity and specificity of individual signs and symptoms reported in different populations^{4, 5} (range sensitivity 0.18 to 0.81; specificity 0.56 to 1.00).⁴ • Positive and negative predictive values of individual signs and symptoms reported in different populations.^{4, 5}
Infection Management Pathway ⁶	All wound types.	<ul style="list-style-type: none"> • Standardises the assessment and diagnosis of causes of delayed healing related to local infection and biofilm. • Provides a treatment plan based on which signs/symptoms of infection are present. • Pathway is commercially positioned. 	<ul style="list-style-type: none"> • Feasibility and psychometric testing is planned.⁶
IWGDF/ IDSA System ⁷	Diabetic foot ulcers.	<ul style="list-style-type: none"> • Developed as a part of PEDIS classification.^{7, 8} • Defines the presence and severity of foot infection in a person with diabetes on four levels of severity. • Requires clinical examination and standard blood and imaging tests. • Stratification aligns with therapeutic decisions. 	<ul style="list-style-type: none"> • Moderately reliable as a predictor of hospitalisation.⁷ • Valid as an indicator of risk of amputation.^{8, 9} • Low inter-rater reliability.⁸
IWII Wound Infection Continuum (IWII-WIC) ¹⁰	All wound types.	<ul style="list-style-type: none"> • Presents clinical signs/symptoms as indicators of different wound infection stages.¹¹ • Conceptual model and teaching tool.¹² 	<ul style="list-style-type: none"> • Includes clinical signs and symptoms validated in other assessment tools.
NERDS and STONES ¹³	Chronic wounds.	<ul style="list-style-type: none"> • Mnemonics for signs and symptoms of superficial (NERDS) and deep (STONES) infection. • Diagnose superficial infection in the presence of at least 3 /5 clinical signs/symptoms of superficial infection (NERDS).¹³ 	<ul style="list-style-type: none"> • Sensitivity and specificity of individual signs and symptoms of superficial infection (NERDS) reported (range sensitivity 0.32 to 0.70; specificity 0.47 to 0.86).¹⁴ • Sensitivity and specificity of individual signs and symptoms of deep infection

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		<ul style="list-style-type: none"> Diagnose deep infection in the presence of at least 3/5 clinical signs/symptoms of superficial infection (NERDS) plus presence of signs/symptoms of deep infection (STONES).¹³ 	<ul style="list-style-type: none"> (STONES) reported (range sensitivity 0.37 to 0.87; specificity 0.44 to 0.89).¹⁴ Sensitivity and specificity of 2-4 signs/symptoms from NERDS or STONES reported.¹⁴
Therapeutic Index for Local Infections (TILI) score ¹⁵	Acute and hard to heal wounds.	<ul style="list-style-type: none"> Six indirect criteria for local wound infection, presence of all criteria indicates antimicrobial treatment should be commenced. Three direct indications; presence of 1 or more criterion indicates antimicrobial treatment should be commenced. Available in multiple languages. 	<ul style="list-style-type: none"> Psychometric testing is planned.¹⁵
Wound Infection Risk Assessment and Evaluation tool (WIRE) ¹⁶	Community-based wounds.	<ul style="list-style-type: none"> Detects early wound infection. Identifies systemic infection based on clinical presentation. 	<ul style="list-style-type: none"> Psychometric testing is planned.¹⁶

Table 03 References

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