Level 3 Evaluation —Analysis of Scientific Quality –SAMPLE

Score Sheet Instructions

Please review the trainee's reports using these three steps:

1. Because every outbreak investigation is unique, the markers will have different levels of importance depending upon the circumstances of the outbreak. (For example, some investigations may not require an analytic study). Therefore, you should first apply a weight to the marker according to its importance to the specific situation of the outbreak you are reviewing.

Weight	**Description**
5	Essential with a major effort required
4	Essential with a moderate effort required
3	Essential with a small effort required
2	Supplemental to the principal goals of the investigation
1	Non essential and only minimal skills and effort needed
0	Not applicable in this investigation

2. For those markers that received a weight greater than 0, please assign a score.

Score	**Description**
5	Far above standard
4	Above standard
3	Standard
2	Minimum standard
1	Below minimum standard
0	Failure

3. Provide qualitative summaries of the overall strengths and weaknesses of the report.

Results

From your weight and score attributions, determine an adjusted score (WEIGHT X SCORE), maximum possible score (WEIGHT X 5), and grade (ADJUSTED SCORE / MAXIMUM POSSIBLE SCORE) for each marker. Examining the marker grades across all reports may reveal trends that will help improve the training curriculum. The grading of individual reports should also be provided as feedback to the authors.

Outbreak Report Score Sheet

Reviewer Name _____

Report # _____ **Report Title** _____

Weight

5: Essential with major effort required
4: Essential with moderate effort required
3: Essential with small effort required
2: Supplemental to the principal goals of the investigation
1: Non-essential and only minimal skills/effort required

Score

5: Far above standard
4: Above standard
3: Standard
2: Minimum standard
1: Below minimum standard

		Marker	Weight	Score
Preparation	1	Description of reasons for doing the investigation is thorough.		
	2	Investigator communicates an understanding of the public health importance of the outbreak.		
Establish Existence of Outbreak	3	Comparison of the observed with expected levels of disease is complete. Correct and necessary numerator and denominator data are obtained and used.		
	4	Other possible reasons for the increase in cases are ruled out. (i.e. change in: reporting process, case definition, diagnostics, reporting staff, or population size).		
Verify Diagnosis	5	Investigator takes steps to confirm the diagnosis.		
	6	Clinical findings are summarized into a frequency distribution.		
	7	Adequate amount of the investigation is conducted on-site.		
Case Definition	8	Case definition(s) are clearly stated and contain objective clinical criteria and appropriate restrictions by person, place, and time. Case definition(s) do not contain exposure or risk factor information.		
Iden tifyi	9	Attempts at case finding and surveillance are complete. Adjacent communities are investigated. Net is cast wide.		

		Marker	Weight	Score
	10	Collection of information from cases is thorough.		
Descriptive Epidemiology	11	Epidemic curve(s) are presented and interpreted. The effects of potential biases are discussed. Examination of pre-epidemic period and cases from adjacent communities is discussed. Epidemic curve is stratified for interpretation.		
	12	The distribution of the problem by place is presented and interpreted. The effects of potential biases are discussed.		
	13	The distribution of the problem by personal factors (i.e. age, sex, and occupation) are presented and interpreted. The effects of potential biases are discussed.		
	14	Statistical concepts are understood and correctly used in descriptive Epidemiology.		
	15	Rates in descriptive Epidemiology are calculated using the appropriate denominators.		
Developing	16	Formulates clear hypotheses consistent with the descriptive Epidemiology with care to details in the data and discussion of relative merits of alternative hypotheses.		
Evaluating Hypotheses	17	Selection and formulation of study design is appropriate.		
	18	Randomization of control or referent groups is appropriate.		
	19	Possible biases in analytic study are discussed thoroughly.		
	20	Data is collected with care.		
	21	The survey instrument collects risk factor and exposure data in a clear and unambiguous manner.		
	22	Relative risk or odds ratios are calculated correctly.		
	23	The appropriate statistical tests are used and justification for the tests is provided.		
	24	Results are presented clearly in the form of tables, graphs and charts.		
	25	Results are interpreted correctly. Discussion of how analytic study relates to descriptive data is provided.		
Additional Studies	26	Confirmatory actions to support discussion of results and conclusions are described (i.e. use of scientific literature, lab or environmental studies).		
Control/ Prevention	27	Control measures are implemented as soon as they are justified.		
	28	Recommendations provide specific suggestions for the prevention of further outbreaks.		

Summary of Strengths:

Summary of Weaknesses:

Additional Comments/Recommendations: