

Model	$E[N(t)]$	Interpretation of Parameters
Goel-Okumoto ¹ (GO) <i>Concave</i>	$a(1 - e^{-bt})$ $a > 0, b > 0$	a – expected cumulative total number of MRs b – MRs-detection rate per MR NHPP
GO S-shaped ² (GO-S) <i>S-shaped</i>	$a(1 - (1 + bt)e^{-bt})$ $a > 0, b > 0$	a – expected cumulative total number of MR b – MR removal: defect detection rate, defect isolation rate NHPP
Gompertz ³ (G) <i>S-shaped for $b > e^{-1}$</i>	$a \cdot b^{c^t}$ $a > 0, 0 < b < 1, 0 < c < 1$	a – expected cumulative total number of MRs b, c – no physical meaning TREND
Hossain-Dahiya/GO ⁴ (HD) <i>S-shaped for $c > 1$</i>	$a(1 - e^{-bt}) / (1 + ce^{-bt})$ $a \geq 0, b > 0, c > 0$	a – expected cumulative total number of MRs c – inflection parameter : $c(r) = (1-r)/r \geq 1, 0 < r < 1/2$ r – inflection rate indicating the ratio of detectable MRs to the total number of MRs in the software NHPP
Logistic ³ (L) <i>S-shaped for $b > 1$</i>	$a / (1 + be^{-ct})$ $a > 0, b > 0, c > 0$	a – expected cumulative total number of MRs b – inflection parameter TREND
Weibull ⁶ (W) <i>S-shaped</i>	$a(1 - e^{-b \cdot t^c})$ $a > 0, b > 0, c > 0$	a – expected cumulative total number of MRs b – error-detection rate c – parameter that changes error detection rate NHPP
Weibull more S-shaped ⁷ (W-S) <i>S-shaped</i>	$a(1 - (1 + b \cdot t^c) \cdot e^{-b \cdot t^c})$ $a > 0, b > 0, c > 0$	a – expected cumulative total number of MRs b – error-detection rate, error-isolation rate c – parameter that changes error detection rate NHPP
Yamada Exponential ⁸ (YE) <i>Concave</i>	$a(1 - e^{-b(1 - e^{-c \cdot t})})$ $a > 0, b > 0, c > 0$	a – expected cumulative total number of MRs $b \cdot (1 - e^{-c \cdot t})$ – cumulative testing effort based on Exponential model NHPP
Yamada Raleigh ⁸ (YR) <i>S-shaped</i>	$a(1 - e^{-b(1 - e^{-c \frac{t^2}{2}})})$ $a > 0, b > 0, c > 0$	a – expected cumulative total number of MRs $b \cdot (1 - e^{-c \cdot \frac{t^2}{2}})$ – cumulative testing effort based on Weibull model NHPP