

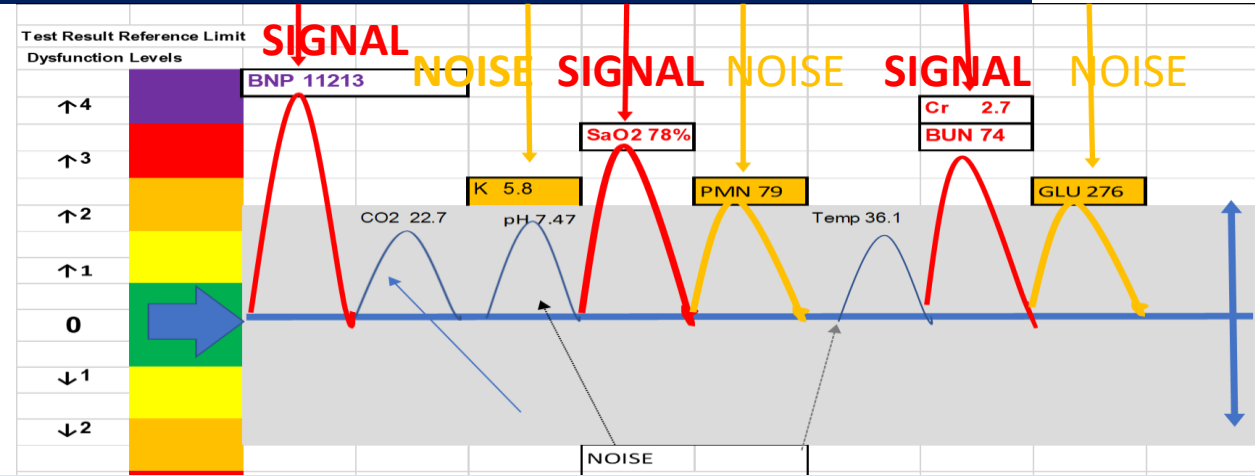
Visual Risk Pattern Digital Images Speed Rapid Clinical Triage to Detect Sequential Interactive Critical Organ Failure

E.M.Travers, MD, MHA, FCAP, FASCP, Chief Medical Officer, Private Medical Practice, Philadelphia PA 19118



Learning & Test Reporting Change Objectives

1. Signal vs. Noise Detection of Significantly Abnormal Biomarkers
2. Color – coded digital diagnostic images signal High Risk(HR) patient's multiple critical organ damage faster than raw, uninterpreted test result numbers
3. Risk "Trigger Signals" Enable Pattern Recognition - Brains are Wired to Detect Patterns & Color RED as a danger signal
4. The FIRST critical organ damage is directly linked to serial Multiple Organ Failure Syndrome



5. Visual Risk Pattern Informatics speed rapid triage of HR patients

Severity-Graded "Trigger Signals" Point to Adverse Events Day 1, Admission Biomarker Results – Case 12-2010

Clinical	Scientific Biomarkers										Severity Level		
	A	AB	Box	BH2O	Bcoag	Binfl	C	Mhep	Mend	E			
	Airway	AcidB	Oxyg	H,Bal	Hemo	Inflam	Circ	Metab	Metab	Excr			
	Pulm	Blood	Blood	Blood	Blood	Blood	CardV	Hepatic	Endoc	Renal			
											BNP 11213	Extremis	
												Cr 2.7 BUN 74	Severe Dysf
													Mod Severe
													Dysf
													Mild Dysf
													Within Ref Int

THE NEW PATIENT – SPECIFIC REPORT

REPORTING WISELY

A PROACTIVE, VISUAL, RISK-STRATIFIED REPORT

SIGNIFICANT ABNORMAL RESULTS

Patient's Critical Risk	Organ System	Abnormal Clinical Scientific Biomarker	Clinical Threshold				Level of Abnormality	
			Low Risk	High Risk	Minimal	Severe		
High risk	Cardiac	HR	Normal	High	Minimal	Severe	> 100	
	Heart	BP	Normal	High	Minimal	Severe	> 100	
	Failure	BNP	Normal	High	Minimal	Severe	> 100	
		BNP	Normal	High	Minimal	Severe	> 100	
Low risk	Cardiac	HR	Normal	High	Minimal	Severe	> 100	
	Heart	BP	Normal	High	Minimal	Severe	> 100	

RESULTS WITHIN LOCAL TEST SITE'S REFERENCE LIMITS

Patient's Biomarkers within Reference Limits	Reference Range	Result
Glucose	70-100	95
Electrolytes	Na, K, Cl, Ca	Normal
Renal	BUN, Cr	Normal
Respiratory	SpO2, PaO2, PaCO2	Normal
Cardiac	ECG, CXR	Normal
Neuro	EEG	Normal
Metabolic	LFTs, TBL	Normal
Endocrine	TSH, FT4	Normal
Immunology	WBC, RBC, Hgb, Hct, Plt	Normal
Coagulation	PT, PTT, INR	Normal
Other	UO1, UO2, Urine	Normal

COLOR CODE FOR SIGNIFICANTLY ABNORMAL BIOMARKERS

- Minimal (Yellow)
- Mod Severe (Orange)
- Severe Elevated >5X Reference Limit (Red)
- Life-Threatening ELEVATED > 10X Reference Limit (Purple)