Supplemetary table

Table S1: Isolate-level characteristics and results obtained with each platform

Isolate ID	Bacterial Species	Allele	Sequence Type (ST)	NCBI Accession	Xpert Carba-R	Galaxy Lite	Molecular Mouse
KP-01-161	*K. pneumoniae*	KPC-2	ST258	CP159934-CP159941	Detected	Detected	Detected
KP-02-212	*K. pneumoniae*	KPC-35	ST258	CP159926-CP159933	Detected	Detected	Detected
EC-01-448	*E. coli*	OXA-48	ST410	PRJNA1265301	Detected	Detected	NT
EC-02-449	*E. coli*	OXA-48	ST410	PRJNA1265301	Detected	Detected	Detected
EC-03-344	*E. coli*	NDM-5	ST167	PRJNA1265301	Detected	Detected	Detected
EC-04-261	*E. coli*	NDM-5	ST167	PRJNA1265301	Detected	Detected	NT
PA-01-112	*P. aeruginosa*	IMP-18	ST111	PRJNA795491	Not Detected	Detected	NT
PA-02-9	*P. aeruginosa*	IMP-16	ST273	PRJNA795491	Not Detected	Detected	NT
PA-03-128	*P. aeruginosa*	IMP-16	ST273	PRJNA795491	Not Detected	Detected	Not Detected
PA-04-94	*P. aeruginosa*	IMP-93	ST357	PRJNA795491	Not Detected	Detected	NT
PA-05-98	*P. aeruginosa*	IMP-93	ST357	PRJNA795491	Not Detected	Detected	NT
PA-06-99	*P. aeruginosa*	IMP-93	ST357	PRJNA795491	Not Detected	Detected	NT
PA-07-108	*P. aeruginosa*	IMP-93	ST357	PRJNA795491	Not Detected	Detected	Not Detected
PA-08-126	*P. aeruginosa*	IMP-93	ST357	PRJNA795491	Not Detected	Detected	Not Detected
PA-09-52	*P. aeruginosa*	IMP-74	ST179	PRJNA795491	Not Detected	Detected	NT
PA-10-113	*P. aeruginosa*	IMP-74	ST179	PRJNA795491	Not Detected	Detected	Not Detected
PA-11-90	*P. aeruginosa*	IMP-18/VIM-2	ST111	PRJNA795491	Detected (VIM)	Detected (both)	Detected (VIM)
PA-12-36	*P. aeruginosa*	IMP-18/VIM-2	ST111	PRJNA795491	Detected (VIM)	Detected (both)	Detected (VIM)
PA-13-141	*P. aeruginosa*	VIM-2	ST111	PRJNA795491	Detected	Detected	NT
KP-03-885	*K. pneumoniae*	OXA-181	ST1174	PRJNA860216	Detected	Detected	Detected
KP-04-487	*K. pneumoniae*	NDM-1/OXA-181		(in press)	Detected (both)	Detected (both)	Detected (both)
KP-05-455	*K. pneumoniae*	OXA-232		(in press)	Detected	Detected	Detected
EC-05-236	*E. coli*	OXA-181		(in press)	Detected	Detected	NT

NT = Not Tested.

Table S2. Paired 2x2 Contingency Tables for Pairwise Platform Comparisons at Gene Target and Isolate Levels

Table S2A. Galaxy Lite vs. Xpert Carba-R Comparison (n = 26 Targets; n = 23 Isolates)

Level of Analysis		Galaxy Lite Positive	Galaxy Lite Negative	Total	McNemar Exact p-value
Gene Target Level (n = 26)	Xpert Carba-R Positive	14	0	14	*p < 0.001*
	Xpert Carba-R Negative	12	0	12	
	Total	26	0	26	
Isolate Level (n = 23)	Xpert Carba-R Positive	11	0	11	*p < 0.001*
	Xpert Carba-R Negative	12	0	12	
	Total	23	0	23	

Table S2B. Galaxy Lite vs. Molecular Mouse Comparison (n = 16 Targets; n = 13 Isolates)

Level of Analysis		Galaxy Lite Positive	Galaxy Lite Negative	Total	McNemar Exact p-value
Gene Target Level (n = 16)	Molecular Mouse Positive	10	0	10	*p = 0.031*
	Molecular Mouse Negative	6	0	6	
	Total	16	0	16	
Isolate Level (n = 13)	Molecular Mouse Positive	7	0	7	*p = 0.031*
	Molecular Mouse Negative	6	0	6	
	Total	13	0	13	

Table S2C. Xpert Carba-R vs. Molecular Mouse Comparison (n = 16 Targets; n = 13 Isolates)

Level of Analysis		Xpert Carba-R Positive	Xpert Carba-R Negative	Total	McNemar Exact p-value
Gene Target Level (n = 16)	Molecular Mouse Positive	10	0	10	NA
	Molecular Mouse Negative	0	6	6	
	Total	10	6	16	
Isolate Level (n = 13)	Molecular Mouse Positive	7	0	7	NA

Molecular Mouse			
Negative	0	6	6
Total	7	6	13

Statistical Test: Paired comparisons were evaluated using McNemar's exact test (two-tailed binomial distribution).
Gene Target Level vs. Isolate Level Definitions:
At the gene target level, each WGS-confirmed carbapenemase gene is treated as an individual analytical observation (n = 26 full panel; n = 16 Molecular Mouse subset).
At the isolate level, an isolate is classified as "Positive" only if its complete WGS-confirmed carbapenemase genotype was successfully detected by the platform.
NA = not applicable; no discordant pairs observed.