Supplementary Table 1: Timeline of antimicrobial resistance in Iraq (1980-2017)

	Year	Key findings on antimicrobial resistance in Iraq
Iran-Iraq War	**1983**	90% of strains of *E. coli*, Pseudomonas spp. and Staphylococcus spp. samples from the river Tigris in Mosul are found to be resistant to one or more antibiotics [a]
	1984	Basrah University Teaching Hospital reports high rates of bacteremia caused *by E. coli*, *K. pneumoniae*, Staphylococcus spp. and salmonella spp., with 31.3% of isolates resistant to all but three antibiotics. There has been no detection of Acinetobacter species. [b]
	1985	Methicillin resistant strain of Staphylococcus aureus from a blast-injured patient from Baghdad causes nosocomial outbreaks in Dublin hospitals. [c]
	1987	Aarabi (1987) finds that Staphylococcus, Streptococcus and Acinetobacter species were the most prominent pathogens cultured from missile head wounds among Iraqi patients injured in the Iran-Iraq war. [d]
Iraq Invasion	**1990**	Sadeghi (1990) detect a marked increase in Pseudomonas, Klebsiella, Enterobacter and Acinetobacter infections in Namazee Hospital, Shiraz, Iran, with "antibiotic sensitivity [that] has diminished dramatically during the 1980s". Sadeghi attributes this, primarily, to the repercussions of the Iran-Iraq war. [e]
U.N. Sanctions	**1999**	General Basrah Hospital reports nosocomial outbreaks of resistant *Pseudomonas aeruginosa*. [f]
	2002	High neonatal septicemia in Al-Anbar province attributed to *S. aureus*, *K. pneumoniae*, and *E. coli*, with many strains resistant to commonly-used antibiotics such as ampicillin and cloxacillin. [g]
U.S. Invasion of Iraq	**2005**	Davis et al. (2005) first describe the wide prevalence of resistant Acinetobacter infections among U.S. soldiers injured during military operations in Iraq. [h]
	2006	Genotypically indistinguishable MDR and XDR *Acinetobacter baumannii* outbreaks begin to be reported in U.S. and U.K. facilities treating casualties of war from Iraq. [i]
	2007	Murray et al. (2009) observe "remarkable changes in resistant profiles for *A. baumannnii*, *K. pneumoniae* and *S. aureus*" between 2005 and 2007. [j]
	2008	First reported indication of colistin resistance in *Enterobacter cloaecae* and *Klebsiella pneumoniae* isolates from Iraq. [k]
	2011	Carbapenem resistance detected in MDR *Acinetobacter baumannii* isolates collected in Iraq. [l]
ISIS Conflict	**2016**	Microbiologists in Baghdad isolate XDR and PDR *Acinetobacter baumannii* among hospitalized patients. [m]
	2017	Emergence of carbapenem resistance in Enterobacteriaceae cultured from wounded military personnel. [n]
Current	**2018**	First reported indication of emergence of NDM-1 and NDM-2 Pseudomonas aeruginosa in Iraqi hospitals [o]
	2021	Researchers in Erbil detect XDR and PDR *Pseudomonas aeruginosa*. [p]

REFERENCES

[a] Al-Jebouri, M. M. (1985). A note on antibiotic resistance in the bacterial flora of raw sewage and sewage-polluted River Tigris in Mosul, Iraq. Journal of Applied Bacteriology, 58(4), 401-406.

[b] Hasony, H. J., & Al-Samaraie, A. G. M. (1989). Bacteremia in Basrah University Teaching Hospital: Incidence, Microbiologic Features, and Therapeutic Pattern. Annals of Saudi Medicine, 9(2), 165-170.

[c] Humphreys, H., Carroll, J. D., Keane, C. T., Cafferkey, M. T., Pomeroy, H. M., & Coleman, D. C. (1990). Importation of methicillin-resistant Staphylococcus aureus from Baghdad to Dublin and subsequent nosocomial spread. Journal of Hospital Infection, 15(2), 127-135.

[d] Aarabi, B. (1987). Comparative study of bacteriological contamination between primary and secondary exploration of missile head wounds. Neurosurgery, 20(4), 610-616.

[e] Sadeghi, E. (1990). Type, frequency, and antimicrobial sensitivity pattern of bacteria in an Iranian hospital during the 1980s. Clinical Infectious Diseases, 12(3), 543-546.

[f] Issa, Al-Hamdani, M. H., Aldobon, A. A. H. A., & AbdulAziz, S. M. (1999). Incidence of nosocomial infection of Pseudomonas aeruginosa in general Basrah Hospital in Basrah city/IRAQ.

[g] Al Zwaini, E. J. K. (2002). Neonatal septicaemia in the neonatal care unit, Al-Anbar governorate, Iraq. EMHJ-Eastern Mediterranean Health Journal, 8 (4-5), 509-514, 2002.

[h] Davis, Kepler A., Kimberly A. Moran, C. Kenneth McAllister, and Paula J. Gray. "Multidrug-resistant Acinetobacter extremity infections in soldiers." Emerging infectious diseases 11, no. 8 (2005): 1218.

[i] Turton JF, Kaufmann ME, Gill MJ, Pike R, Scott PT, Fishbain J, et al. Comparison of Acinetobacter baumannii isolates from the United Kingdom and the United States that were associated with repatriated casualties of the Iraq conflict. J Clin Microbiol. 2006;44(7):2630–4.

[j] Murray, C. K., Yun, H. C., Griffith, M. E., Thompson, B., Crouch, H. K., Monson, L. S., ... & Hospenthal, D. R. (2009). Recovery of multidrug-resistant bacteria from combat personnel evacuated from Iraq and Afghanistan at a single military treatment facility. Military medicine, 174(6), 598-604.

[k] Paolino, K., Erwin, D., Padharia, V., Carrero, H., Giron, L., Burgess, R., ... & Zapor, M. (2007). In vitro activity of colistin against multidrug-resistant gram-negative bacteria isolated at a major army hospital during the military campaigns in Iraq and Afghanistan. Clinical infectious diseases, 45(1), 140-141.

[l] Kusradze, I., Diene, S. M., Goderdzishvili, M., & Rolain, J. M. (2011). Molecular detection of OXA carbapenemase genes in multidrug-resistant Acinetobacter baumannii isolates from Iraq and Georgia. International journal of antimicrobial agents, 38(2), 164-168.

[m] Jasim, H. N., Hafidh, R. R., & Abdulamir, A. S. (2018). Formation of therapeutic phage cocktail and endolysin to highly multi-drug resistant Acinetobacter baumannii: in vitro and in vivo study. Iranian journal of basic medical sciences, 21(11), 1100.

[n] Mende, K., Beckius, M. L., Zera, W. C., Onmus-Leone, F., Murray, C. C. K., & Tribble, D. R. (2017). Low prevalence of carbapenem-resistant Enterobacteriaceae among wounded military personnel. US Army Medical Department Journal, (2-17), 12.

[o] Ismail, S. J., & Mahmoud, S. S. (2018). First detection of New Delhi metallo-β-lactamases variants (NDM-1, NDM-2) among Pseudomonas aeruginosa isolated from Iraqi hospitals. Iranian journal of microbiology, 10(2), 98.

[p] Ali, F. A., Bakir, S. H., Haji, S. H., & Hussen, B. M. (2021). Evaluation of blaGES-5 and bla veb-1 genes with multidrug-resistant extend, pandrug resistance patterns (MDR, XDR, PDR), and biofilm formation in Pseudomonas aeruginosa isolates. Cellular and Molecular Biology, 67(3), 52-60.