

## **Material and Methods**

We conducted a systematic search, for this meta-summary, from the databases of PubMed, and Science Direct. The search terms included ("drug overdose" OR poisoning OR hypoglycemia OR "lactic acidosis" AND Metformin).

Further, it was filtered for the case reports published in the English language, and on adult (> 18 years) humans. We screened all the search results manually, and we included the relevant literature for Metformin toxicity only. Duplicate articles from different search databases were excluded manually.

### ***Data analysis***

We prepared the datasheet and evaluated it with help of Excel, Microsoft office 2019. Categorical variables were presented as frequency and percentage. Mean [standard deviation (SD)] or median [interquartile range (IQR)] was used for continuous variables as appropriate. We applied a non-parametric correlational statistical test to test the non-parametric statistical hypothesis as found appropriate. A p-value of < 0.05 was deemed significant.

All the statistical analyses were done using SPSS (version 25.0, IBM SPSS Inc., Chicago, IL, United States) unless otherwise indicated. Tabulation and final documentation were done using MS Office software (MS office 2019, Microsoft Corp, WA, United States).

**Supplementary Table 1 Literature search**

Database	PubMed	Science direct	Google scholar
<b>keywords</b>	("drug overdose" OR "adverse drug reaction" OR poisoning OR hypoglycemia OR "lactic acidosis" OR "metabolic acidosis") AND Metformin	("drug overdose" OR "adverse drug reaction" OR poisoning OR hypoglycemia OR "lactic acidosis" OR "metabolic acidosis") AND Metformin	("drug overdose" OR "adverse drug reaction" OR poisoning OR hypoglycemia OR hypoglycemia OR "lactic acidosis" OR "lactic acidosis" OR "metabolic acidosis") AND Metformin AND "Case Report"
<b>Page link</b>	<a href="https://pubmed.ncbi.nlm.nih.gov/?term=%28%22drug+overdose%22+OR+%22adverse+drug+reaction%22+OR+poisoning+OR+hypoglycemia+OR+%22lactic+acidosis%22+OR+%22metabolic+acidosis%22%29+AND+Metformin&amp;filt">https://pubmed.ncbi.nlm.nih.gov/?term=%28%22drug+overdose%22+OR+%22adverse+drug+reaction%22+OR+poisoning+OR+hypoglycemia+OR+%22lactic+acidosis%22+OR+%22metabolic+acidosis%22%29+AND+Metformin&amp;filt</a>	<a href="https://www.sciencedirect.com/search?q=%28%22drug%20overdose%22%20OR%20%22adverse%20drug%20reaction%22%20OR%20poisoning%20OR%20hypoglycemia%20OR%20%22lactic%20acidosis%22%20OR%20%22metabolic%20acidosis%22%29%2">https://www.sciencedirect.com/search?q=%28%22drug%20overdose%22%20OR%20%22adverse%20drug%20reaction%22%20OR%20poisoning%20OR%20hypoglycemia%20OR%20%22lactic%20acidosis%22%20OR%20%22metabolic%20acidosis%22%29%2</a>	<a href="https://scholar.google.com/scholar?hl=en&amp;as_sdt=0%2C5&amp;q=%28%22drug+overdose%22+OR+%22adverse+drug+reaction%22+OR+poisoning+OR+hypoglycemia+OR+lactic+acidosis%22+OR+%22metabolic+acidosis%22%29+AND+Metformin+AND+Case+Report">https://scholar.google.com/scholar?hl=en&amp;as_sdt=0%2C5&amp;q=%28%22drug+overdose%22+OR+%22adverse+drug+reaction%22+OR+poisoning+OR+hypoglycemia+OR+lactic+acidosis%22+OR+%22metabolic+acidosis%22%29+AND+Metformin+AND+Case+Report</a>

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<b>Primary results (n)</b> (keyword results )	3590	10856	76800
<b>Screening (n)</b> (after applying filters)	291	149	12800
<b>Eligibility</b> (by sorting manually the relevance of each article)(n)	263	27	
<b>Inclusion (n)</b> (manually sorted list of final literature set after removal of duplicates)	184		

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**Supplementary Table 2 Counts of studies and cases**

	Counts of studies	Counts of cases
<b>Total case reports</b>	<b>158</b>	<b>158</b>
<b>Total case series</b>	<b>26</b>	<b>84</b>

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