

Table 1 – Summary of demographic, clinical and outcome characteristics

Characteristic	Result
Total patients	18
Age, median [IQR]	15,5 [4]
Female sex, n (%)	13 (72.0)
Portuguese nationality, n (%)	15 (83.3)
Previous suicide attempt, n (%)	1 (5.6)
Psychiatric follow-up, n (%)	9 (50.0)
Method – Major trauma, n (%)	7 (38.9)
Method – Intoxication, n (%)	10 (55.6)
Substance use at time of SA, n (%)	4 (22.2)
PICU stay, median [IQR] (days)	3.5 [4]
PICU stay, mean \pm SD (days)	5.6 \pm 8
Hospital stay, median [IQR] (days)	11.5 [31]
Hospital stay, mean \pm SD (days)	29 \pm 47.8
IMV required, n (%)	16 (89)
IMV duration, mean \pm SD (n = 16)*	4.42 \pm 7.06
Inotropic support, n (%)	8 (44)
Hemodiafiltration, n (%)	1 (5.6)
ECMO, n (%)	1 (5.6)
Mortality, n (%)	0 (0.0)
Psychiatric referral, n (%)	16 (89.0)

*: Only for those who needed IMV (n = 16)

Timing

The cases were fairly balanced across periods: 2015 - 2017 (four cases), 2018 - 2021 (seven cases), and 2022 - 2025 (seven cases). January, April, June, and November were the most frequent months for PICU admission (three each), followed by February, May, July, August, September, and December (one each).

Pre-event characteristics

Only one patient (5.6%) had a previously recorded SA, while 18.8% had missing data. Half had prior psychiatric or psychological follow-up. Depression (n = 7), anxiety (n = 5), and personality disorders (n = 3) were the most frequent; four had multiple diagnoses. Attention-deficit/hyperactivity disorder (ADHD), eating disorders, and conduct disorders appeared once each. Family conflict was the main precipitating factor (38.9%), followed by peer conflict and difficulties related to gender or sexuality (n = 2 each). Individual triggers included conflicts in adoptive families, relationship distress, exposure to community suicides, and academic pressure. In three cases, triggers were undetermined.

Self-harm cuts were present in five cases (28%), while thirteen had missing data on this variable.

Previous health visits

The final healthcare visit before SA varied: tonsillitis (n = 3), flu (n = 3), check-ups (n = 2), seizures (n = 2), and gynecologic conditions (n = 2). Single visits addressed allergies, metabolic problems, dermatophytosis, low back pain, headaches, or hematuria. The time between the last contact and SA ranged widely (4 - 3174 days, ~ 8.7 years), with a median of 82 days, suggesting that most attempts occurred months after the last clinical contact.

Methods used

Regarding the method used, more than half of the patients (n = 10) used drug intoxication, while 38.9% (n = 7) resorted to major trauma, in all cases jumping from heights. One patient attempted hanging. Ingested substances included psychotropics (sertraline, paroxetine, alprazolam, amitriptyline, trazodone, quetiapine, cyamemazine), antiepileptics (carbamazepine, valproic acid), and other medications (isoniazid, ropinirole, propafenone, amlodipine, perindopril). Alcohol appeared in two cases. Substance use (alcohol, benzodiazepines, cannabis, or opiates) was recorded in 22%, even though toxicological screening was absent in 33%, mostly among trauma cases (71%).

Severity and clinical results

Median PICU stay was 3.5 days (IQR 4), and total hospitalization 11.5 days (IQR 31) (Table 2). Invasive mechanical ventilation (IMV) was required in 89% (n = 16), lasting 4.4 \pm 7.1 days on average. Inotropic support was necessary in eight cases (44%), while hemodiafiltration and extracorporeal membrane oxygenation (ECMO) were required in one patient. One patient underwent thoracentesis.

Complications

No deaths occurred. Acute complications included poly-trauma (n = 5), limb fractures (n = 3), agitation (n = 3), and isolated cases of altered status, pneumothorax, pancreatitis, hypotension, cardiogenic shock, intracranial hypertension, and status epilepticus. Long-term complications included intensive care related infections (urinary tract infection and ventilator associated pneumonia) in three cases, and with a single case in each of the following: tracheostomy, dysphagia, pressure-induced skin injury, articular pain, osteoarthritis, hydrocephalus, gastrostomy, severe encephalopathy, and tetraparesis.

Self-harm method comparative analysis

Comparing intoxication and trauma, intoxication had shorter PICU and hospital stays. Median PICU stay was 3.5 (IQR 3.5) *versus* 2.5 (IQR 3.5); hospital stay 9.5 (IQR 33) *versus* 11.5 (IQR 33). Invasive mechanical ventilation was required in all but one per group. Inotropic support was

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