

# Validation of a novel algorithm for dynamic assessment of fluid challenge: a multicentric study

ACTRN12617000076370

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Status	RECRUITING
Sponsor	antonio messina
Enrollment	82 participants

## Plain Language Summary

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This ICU study is testing a new way to decide whether giving extra fluids to a critically ill patient with low blood pressure will actually help them. Currently, doctors look at one blood pressure measurement to guide this decision, but that method is not always reliable. This study tests a new algorithm that looks at several measurements together to better predict whether fluid will benefit each patient. The fluid is given as part of standard care — the algorithm results are reviewed after the fact.

You may be eligible if:

- You are 18 years old or older
- You are in an ICU with signs of poor circulation, including low blood pressure (systolic blood pressure at or below 90 mmHg) PLUS at least one of: low urine output, fast heart rate (over 100 beats per minute), or skin mottling

You may NOT be eligible if:

- You have severe heart failure (NYHA Class III or IV) or serious heart valve disease
- You have cardiac arrhythmias (irregular heartbeat)
- You have severe acute respiratory distress syndrome (ARDS)
- You are on dialysis or continuous kidney filtration
- You have a condition affecting the shape of the arterial pressure wave, such as aortic dissection

Talk to your doctor about whether this trial might be right for you.

## Key Eligibility Criteria

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### Inclusion (1)

- Group 1 (ICU septic) and 2 (ICU non septic): Acute circulatory failure defined by a systolic arterial pressure less than or equal to 90 mm Hg (or fall of systolic arterial pressure higher or equal to 50 mm Hg in known hypertensive patients) and one or more of the following signs: 1) urinary flow less than or equal to 0.5 mL/kg/min for greater than or equal to 2 hours, 2) tachycardia greater than or equal to 100 bpm, or 3) presence of skin mottling.

## Locations (3 total)

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Piedmont, Italy  
Spain, Spain  
France, France

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<https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=ACTRN12617000076370>

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