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FY1 doctors still poor in prescribing intravenous fluids

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The British consensus guidelines on intravenous fluid therapy for adult surgical patients (GIFTASUP) were developed in 2008.¹ ² They provide recommendations on patient assessment and intravenous fluid prescribing in surgical patients.

We undertook a questionnaire study assessing knowledge and confidence along with the use of these guidelines in 33 foundation year 1 (FY1) doctors in their first post. General knowledge about intravenous fluid administration was poor, with 16 (49%) scoring only 2 out of 5, five (15%) scoring 3 of 5, and two (6%) scoring 4 of 5. Confidence was poor, with most doctors scoring 3 out of 5 for prescribing intravenous fluids, fluid challenge, and adding potassium to a fluid regimen (52%, 52%, and 46% respectively). Clinical parameters suggested by GIFTASUP to assess fluid status were poorly used, and only pulse, blood pressure, and urine output were used regularly (79%, 85%, and 88%, respectively). Only half of doctors stated that they used blood results, comorbidities, and jugular venous pressure to help prescribe intravenous fluids.

This study has formally shown what many senior doctors have known for some time: that FY1 doctors in their first post have an alarmingly poor understanding of the content and administration of intravenous fluids commonly given to surgical patients and the indications for using different regimens.

Although these findings have been reported previously, the deficiencies remain and might explain the incidence of fluid overload and iatrogenic pulmonary oedema in surgical patients.³ ⁴ The findings reflect badly on undergraduate medical education, and the problem is probably widespread. Understanding the physiological changes in various clinical states and the implications for intravenous fluid prescribing must assume greater importance in undergraduate and postgraduate medical education.

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