to be both culturally syntonic and feasible for the global scope and scale. Access to bereavement support, and higher order mental health interventions as needed, is further constrained by an overburdened health-care system and low numbers of mental health providers. For this reason, support services are likely to be most feasible and effective when approached and offered in collaboration with schools, churches, community health workers, and international advocacy groups and non-governmental organisations.

When compared with the overall prevalence of global orphanhood (140 million total orphans[11]), the 1 million children bereaved by COVID-19 could appear underwhelming on a relative scale; however, on an absolute level, this number represents a considerably large group of children in need of support. By answering the authors' call to expand our worldwide pandemic response to include caring for children, the global community can capitalise on this momentum; we can harness the current global attention on children bereaved by the pandemic to mobilise resources and implement systemic, sustainable supports for bereaved youth around the world.

We declare no competing interests.

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Appropriate vascular access for patients with cancer

Questions as to how best to meet vascular access needs and safety requirements when caring for patients with cancer occur daily in clinical practice, yet evidence for which methods are optimal is poor. In cancer, use of vascular devices such as peripherally inserted central catheters (PICCs), Hickman-type tunnelled catheters (eg, Hickman), or totally implanted ports (PORTs) is common. Collectively, these are referred to as central venous access devices (CVADs). Hickman and PICCs are catheters with an external segment, in contrast to PORTs, which are totally implanted under the skin. CVADs are rightly referred to as a lifeline for patients with cancer. In addition to chemotherapy, they are used to administer blood products, hydration, parenteral nutrition, antibiotics, and phlebotomy. The devices also improve patients' quality of life by reducing the need for venepunctures.

All CVADs are associated with risks, including infection, venous thrombosis, and occlusion—events that could delay treatment or cause the patient harm. Importantly, device characteristics have been shown to independently contribute to such outcomes. The oncological population is at increased risk for catheter-related infection and thrombosis in the setting of immunosuppressive therapies, treatment-related neutropenia, and a prothrombotic state secondary to malignancy. Therefore, choosing the appropriate CVAD in cancer is not a mundane exercise; rather, it is essential to patient safety.[1–3]

Despite the weight of this decision, guidelines have not provided direction due to the absence of high-quality trials comparing different CVADs.[4,5] Nevertheless, practice has evolved in the absence of evidence-based recommendations. Because PORTs and tunnelled catheters require dedicated theatre time and specialist expertise, they are costlier and can be harder to arrange. Conversely, as PICCs can be conveniently inserted at the bedside, they are perceived to be safer and have


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Published **Online**
July 20, 2021
https://doi.org/10.1016/S0140-6736(21)00920-X

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lower upfront costs; thus, they have gained a strong foothold in oncology.[6] The question remains as to which device is best for cancer care.

In *The Lancet*, Jonathan Moss and colleagues[7] compare three different devices head-to-head in a randomised controlled trial with four randomisation options (Hickman *vs* PICCs *vs* PORTs; PICCs *vs* Hickman; PORTs *vs* Hickman; and PORTs *vs* PICCs) in 1061 patients receiving systemic anticancer treatment for solid or haematological malignancy (527 [50%] men and 534 [50%] women, mean age 60 years, 95% white). Complication rate (composite of infection, venous thrombosis, pulmonary embolus, inability to aspirate blood, mechanical failure, and other) was the primary outcome assessed until device removal, withdrawal from study, or 1 year follow-up. Moss and colleagues report that PORTs were less likely to cause harm than Hickman (complication rate 29% *vs* 43%, odds ratio [OR] 0·54 [95% CI 0·37–0·77]) and PICCs (complication rate 32% *vs* 47%, OR 0·52 [0·33–0·83]). PICCs and Hickman had similar complication rates (52% *vs* 49%, OR 1·15 [0·78–1·71]). Using a device-specific quality of life assessment instrument, a significant benefit was found in the PORT group. Unexpectedly, PORTs were cheaper per catheter week when compared with PICCs (£263 *vs* £304), but similar to Hickman (–£45 [95% CI –744 to 655]).

The findings of the Cancer And Vascular Access (CAVA) trial[7] accord with those of the few randomised controlled trials[8–10] and systematic reviews[11–13] of CVADs in patients with cancer. The strength of this study lies in its size, pragmatic nature, multicentre design, and patient-centred approach. The findings solidify that not all CVADs are equal; rather, some are better than others. The results are also aligned with published appropriateness criteria that help clinicians select the safest device for patients.[1]

However, questions remain. First, since only 89 (8%) of the patients in CAVA had haematological cancer, the optimal CVAD for this patient cohort remains unclear. Second, the analysis comparing Hickman with PICCs was underpowered, making interpretation challenging. Third, the trial was done in a high-income country, with a largely white population and with ample resources; how the findings will generalise to other settings is unclear. Finally, the insertion of PORTs and Hickman is typically done in operating theatres and interventional radiology suites. Access to these resources is often limited, leaving PICC placement as the most convenient option. Indeed, we see this limitation in our own practices in Europe and the USA. It is therefore uncertain what clinicians should do with the findings of the Article.

In our opinion, the evidence so far supports PORTs as the first choice for solid and haematological malignancies in patients without contraindications. In the context of contraindications (eg, severe thrombocytopenia), PICCs with the fewest number of lumens are a reasonable option in patients with haematological cancers, although risk of thrombosis and occlusion must be considered. In cancer care, the role of Hickman catheters should be limited to specific circumstances (eg, bone-marrow transplantation).

We declare no competing interests.

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