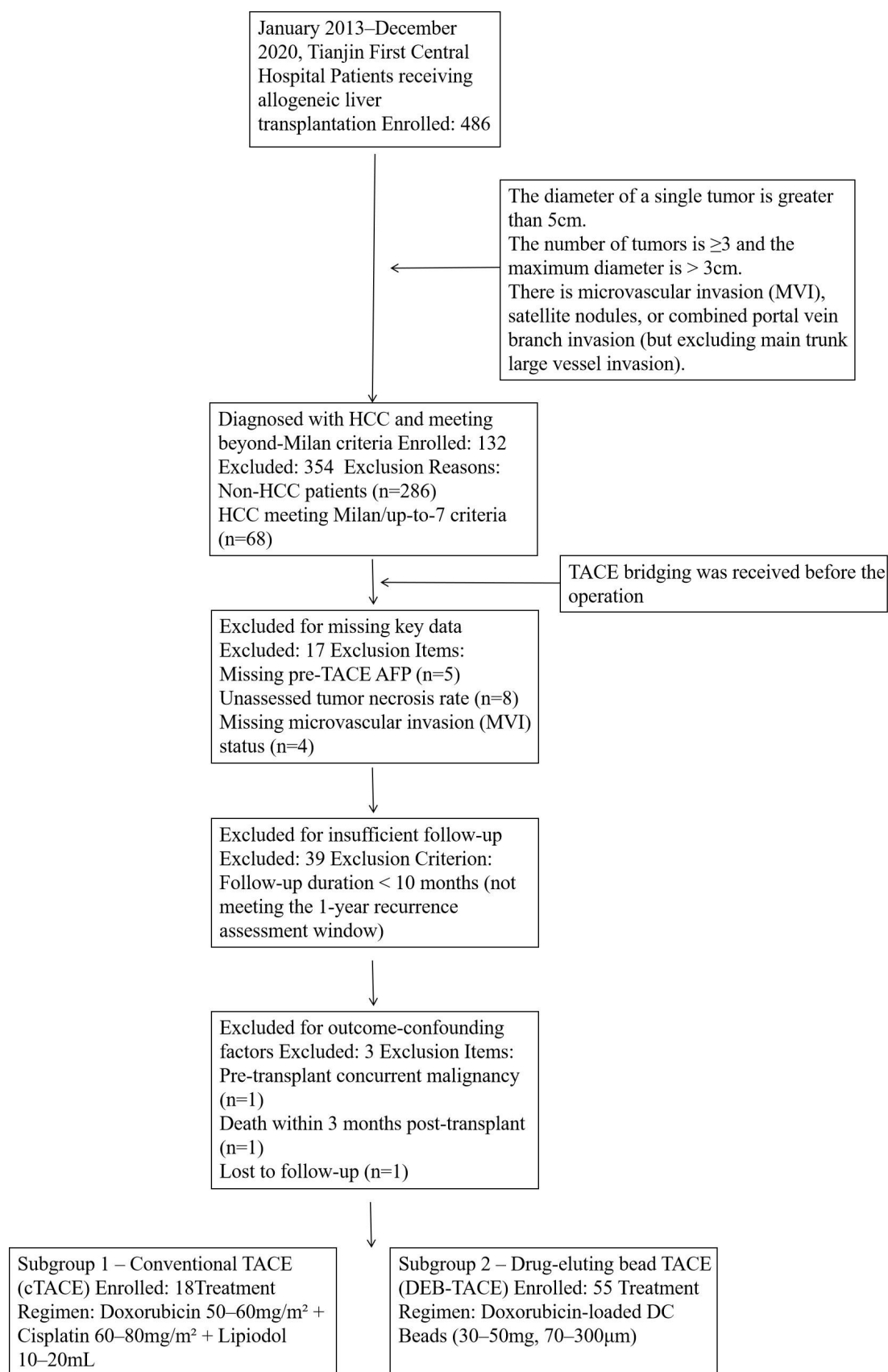


## Supplementary Figure 1



**Supplementary Figure 1.** Flowchart of patient enrollment and subgroup allocation

This flowchart details the enrollment of 486 patients who underwent allogeneic liver transplantation at Tianjin First Central Hospital (January 2013 – December 2020): eligible patients were those with hepatocellular carcinoma (HCC) meeting beyond-Milan criteria (single tumor >5 cm;  $\geq 3$  tumors with max diameter  $\geq 3$  cm; microvascular invasion [MVI], satellite nodules, or portal vein branch invasion [excluding main trunk/large vessels]) and receiving pre-transplant transcatheter arterial chemoembolization (TACE) bridging therapy, while 354 were excluded (non-HCC, HCC meeting Milan/up-to-7 criteria), 17 for missing key data (pre-TACE AFP, tumor necrosis rate, MVI status), 39 for insufficient follow-up (<10 months, not meeting 1-year recurrence assessment), and 3 for outcome-confounding factors (pre-transplant malignancy, post-transplant death within 3 months, lost to follow-up); the remaining 73 patients were allocated to Subgroup 1 (conventional TACE [cTACE], n=18: doxorubicin + cisplatin + Lipiodol) or Subgroup 2 (drug-eluting bead TACE [DEB-TACE], n=55: doxorubicin-loaded DC Beads)