Table 2. Minimum dataset and additional data comprising the standard adult TTE study. The table summarizes the minimum and additional data comprising the standard adult TTE stud by view, modality, structure, measurements, and derived calculations. Additional data are annotated with [A]. Views and measurements not supported unanimously are given in italics. CFM = color flow mapping; PW = pulsed wave Doppler; CW = continuos wave Doppler; LV = left ventricle; RV = right ventricle; LA = left atrium; RA = right atrium; Las = LA in systoile; LVIDd/s left ventricular internal diameter in diastole and systole; LVSd/s left ventricular septal width in diastole and systole; LVPWd/s left ventricular posterior wall width in diastole and systole; MV = mitral valve; MR = mitral regurgitation; MS = mitral stenosis; LVOT = left ventricular outflow tract; AR = aortic regurgitation; AS = aortic stenosis; VSD = ventricular septal defect; IVC = inferior vena cava; SVC = superior vena cava; TV = tricuspid valve; TR = tricuspid regurgitation; Vmax, V mean = maximum and mean velocities; VTI = velocity-time integral; Pmax, P mean = maximum and mean pressure gradient; RVOT = right ventricular outflow tract; PV = pulmonary valve; PR = pulmonary regurgitation; $\mathrm{PS}=$ pulmonary stenosis; $\mathrm{PA}=$ pulmonary artery; PAPs, $\mathrm{d}=$ pulmonary artery pressure, systolic/diastolic; AV = aortic valve; RUPV = right upper pulmonary vein; PDA = pervium doctus arteriosum; PHT pressure half-time; DET deceleration time; IVRT = isovolumic relaxation time; RVd right ventricular cavity diameter in diastole; MVA = mitral valve area; IVS = inter-ventricular septum; SAX = short axis; Ch = chamber.

| View | Modality | Structures Assessed | Measure | Calculate |
| :--- | :--- | :--- | :--- | :--- |
| Parasternal 2D LV cavity size, wall thickness, function LVIDd/s, LVSd/s, LVPWd/s <br> LAX  LV cavity size and function LAs |  |  |  |  |
|  |  | Aortic root \& valve - appearance \& function | annulus, root, sinuses, sino-tubular junction, <br> ascending .aorta |  |
|  | M mode | LV cavity size, wall thickness | LVIDd/s, LVSd/s, LVPWd/s | FS |


|  | CFM | RV cavity size | RV(d) |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | MV | $\pm$ End Systolic separation |  |
|  |  | AV/aortic root/LA size | LAs, cusp separation, root | LA:Ao ratio [A] |
|  |  | MV inflow / MR | AR width | AR:LVOT ratio |
|  |  | LVOT / AR |  | [A] |
|  |  | VSD |  |  |
| RV inflow [A] | 2D | RV cavity size and function |  |  |
|  |  | RA, IVC, SVC, $\pm$ coronary sinus |  |  |
|  |  | TV - appearance and function |  |  |
|  | CFM | TV inflow, TR |  |  |
|  | CW | TR | Vmax | PA pressure |
| RV outflow | 2D | RVOT, PV, main PA | PV annulus |  |
|  | CFM | RVOT, PS, PR, PA |  |  |
|  | PW | RVOT | Vmax, Vmean, VTI |  |
|  | CW | PS | Vmax, Vmean | Pmax, Pmean PAPd |
|  |  | PR | Vmax PRed |  |
| Parasternal <br> SAX (basal) | 2D | LA atrial septum |  |  |
|  |  | RA |  |  |
|  |  | TV - appearance and function |  |  |
|  |  | RV cavity size and function |  |  |
|  |  | PV, PA main, right |  |  |
|  |  | AV - appearance and function |  |  |
|  | CFM | SVC, RUPV, atrial septum [A] |  |  |
|  |  | TV inflow, TR [A] |  |  |


|  |  | RVOT, PS, PR, PA (PDA) [A] | Vmax, Vmean, VTI |  |
| :---: | :---: | :---: | :---: | :---: |
|  | PW CW | $\begin{aligned} & \operatorname{RVOT}[\mathbf{A}] \\ & \operatorname{TR}[\mathbf{A}] \\ & \operatorname{PS}[\mathbf{A}] \\ & \operatorname{PR}[\mathbf{A}] \end{aligned}$ | Vmax <br> Vmax, Vmean <br> Vmax PRed | PAPs <br> Pmean, Pmax <br> PAPd |
| Parasternal SAX (MV) | 2D | LV size, wall thickness, function (basal segments) <br> RV cavity size and function <br> MV - appearance and function | MVA planimetry [A] |  |
|  | CFM | MV inflow, MR [A] (VSD) |  |  |
| Parasternal SAX (cords) | $\begin{aligned} & \text { 2D } \\ & \text { CFM } \end{aligned}$ | LV size, wall thickness, function (mid segments) (VSD) |  |  |
| Parasternal SAX (apex) | $\begin{aligned} & \text { 2D } \\ & \text { CFM } \end{aligned}$ | LV size, wall thickness, function (apical segment) (VSD) |  |  |
| Apical 4Ch | 2D | LV cavity size, wall thickness, function (IVS, lateral wall) <br> RV cavity size and function <br> LA size <br> RA size <br> MV - appearance and function <br> TV - appearance and function | Area or volume [A] <br> Area or volume [A] | LA vol index[A] RA vol index[A] |
|  | CFM | MV inflow, MR TV inflow, TR |  |  |
|  | PW | LV inflow (MV tips) | E, E DET,A IVRT [A] | E/A ratio |
|  | CW | MS | Vmax, Vmean [A] | Pmax, Pmean PHT [A] MVA |



| Subcostal SAX | 2D | SAX structures <br> Atrial septum <br> IVC, Hepatic Veins (modified view) <br> Descending Aorta (modified view) |  |
| :--- | :--- | :--- | :--- |
|  | M-mode | IVC |  |
|  | CFM | SAX structures <br> Atrial septum <br> IVC , Hepatic. Veins <br> Descending. Aorta | IVC distens. index |
|  | PW | Hepatic Veins <br> Descending. Aorta |  |
| Supra-sternal | 2D | Arch |  |
|  | CFM | Arch, coarctation, PDA | Flow reversal |
|  | PW | Descending. Aorta | Vmax, Vmean [A] |
|  | CW | Ascending Aorta (AS) <br> Descending. Aorta (coarctation) | Vmax, Vmean [A] |

