Appendix

Table S1. Brief overview of the entire process documentation.

Innsbruck University	PB Number 1 5					
Hospital						
Orthopaedics and traumatology						
Process: Quality management process internal/external 3D printing process						
Main process: 3D printing of anatomical models for pr Version 1.0	eoperative plannir	ng, training a	and patient educ	Page 1/4		
1. Purpose and Objective						
This process description regulates the procedure and responsibilities from the notification of requirements to documentation/archiving.						
<i>Objective:</i> - Ensure that quality approaches and requirements are adhered to throughout the 3D printing process.						
Abbreviations and Terms used						
STL Stereolithograph	reolithography					
CT Computer tomo	nputer tomography					
MRT Magnetic resona	gnetic resonance imaging					
CAD Computer Aided	Computer Aided Design					
2. Applicable Documents						
 Rough concept of the individual QM steps during the 3D printing process 3. Process Description (see following pages) 						
Consent to use						
Testing and approval						
3.1. Process Description	Proces for r	sing system (: ealisation (D)	5), Responsible , Decision (E)	C= Surgeon T= Technician O = Outlook R= Radiologist S= Radiation diagnostician SO= Software		
				Input		
Procedure / Activity	S	D	E	Output		
				Explanations		
Starting result = REQUIREMENT	0	C	C			
1. Analysis fo requirements/needs		C/T	С			
2. Quality check material/printing						
process		C/T	C			

3. Acquisition of image material (CT/MRI)	CT/MRT	R	R	
4. Checking the image material	SO	C/T	C/T	
5. Improving image quality	SO	R	С	
6. Segmentation/Processing	SO	T/R	Т	
7. Rendering	SO	R/S	R/S	
8. Converting to STL file and exporting to CAD model	SO	S/R/T	R/T	
9. Furthe processing of CAD model	SO	S/R	R	
10.Decision internal/external print	SO		Т	
11. internal/external printing	SO	Т	Т	
12. Post-processing	T/SO	Т	C/T	
13. Documentation and				
traceability	SO	Т	т	
FINAL EVENT = ARCHIVING				

For better readability, the process visualisation created using the ADONIS software is attached separately as an image file.

Figure S1. Overview of the entire 3D printing process.



Externe Dienstleister