

JOURNAL
OF
CLINICAL
AND
HEALTH SCIENCES

JCHS

SUPPLEMENTARY ISSUE

MARCH 2026
VOLUME 11 ISSUE 1 (SUPPLEMENTARY)



Fakulti
Sains Kesihatan



EMERGING TRENDS
IN MEDICAL IMAGING:
FROM PATIENTS TO PIXELS
SYMPOSIUM

Official Journal of
Faculty of Medicine
Universiti Teknologi
MARA



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eISSN-0127-984X

ETU020

Use of Pitch in Head CT Scans for Trauma Cases at Banyumas Regional General Hospital

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Introduction: Banyumas Regional General Hospital examination head CT scans for trauma cases. The use of pitch parameters in CT scans is crucial for producing high-quality images while minimizing the radiation dose received by the patient. However, there are variations in the application of optimal pitch usage in head CT scans at RSUD Banyumas. This study aims to determine the procedure for head CT scans in trauma cases, the appropriate pitch usage, and the resulting image quality. **Methods:** This type of research is using descriptive qualitative with a case study approach. The author explains in general about the Use of Pitch in Head CT Scan Examination in Trauma Cases at Banyumas Regional Hospital. **Results:** The head CT scan procedure for trauma at RSUD Banyumas follows the standard head CT scan trauma protocol, with the patient positioned supine head first, and a pitch parameter of 0.55 is used. A lower pitch can improve image detail and noise, albeit with the risk of a higher radiation dose. Noise is determined by the standard deviation used. The standard deviation used at RSUD Banyumas is 21 HU. The resulting image quality meets diagnostic standards, with assessment by a radiologist indicating that the images produced are sufficiently informative for diagnosis. **Conclusions:** the appropriate use of pitch in head CT scans for trauma at RSUD Banyumas significantly influences the resulting image quality. Therefore, it is important for medical personnel to understand and optimally apply this parameter to improve diagnostic outcomes and patient safety.

Keywords: pitch, image quality, CT head trauma