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CERRAHPAŞA FACULTY OF MEDICINE
DEPARTMENT OF ORTHOPAEDICS AND TRAUMATOLOGY



The Impact Of Postoperative Hemogram And Crp Blood Values On Daily Functional Recovery Following Total Knee Arthroplasty

Authors: Cumhuriyet Deniz Davulcu¹

Presenter: Muhammed Yusuf Afacan¹

Istanbul, Türkiye



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Faculty Disclosure Information

- Nothing to disclose.



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INTRODUCTION:

The study aimed to investigate the impact of postoperative blood values on the daily functional recovery of patients following Total Knee Arthroplasty (TKA). Understanding these relationships can aid in improving postoperative care and optimizing recovery protocols.



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METHOD:

A retrospective cohort study was conducted on 130 patients who underwent TKA between January 2020 and December 2022. Postoperative blood values, including hemoglobin, hematocrit, Creactive protein (CRP), and white blood cell (WBC) counts, were collected at 24 hours and 72 hours post-surgery. Daily functional recovery was assessed using the Knee Society Score (KSS) and the Timed Up and Go (TUG) test at postoperative days 1, 3, 5, and 7. Statistical analysis was performed to evaluate correlations between blood values and functional recovery metrics.



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RESULTS:

The study found significant correlations between certain postoperative blood values and daily functional recovery scores. Lower hemoglobin and hematocrit levels at 24 hours post-surgery were associated with delayed recovery times as measured by the TUG test ($p < 0.05$). Elevated CRP levels were linked to lower KSS scores, indicating decreased knee functionality and increased pain ($p < 0.01$). Higher WBC counts were also significantly associated with poorer functional outcomes, suggesting a potential inflammatory response that hinders recovery ($p < 0.05$).



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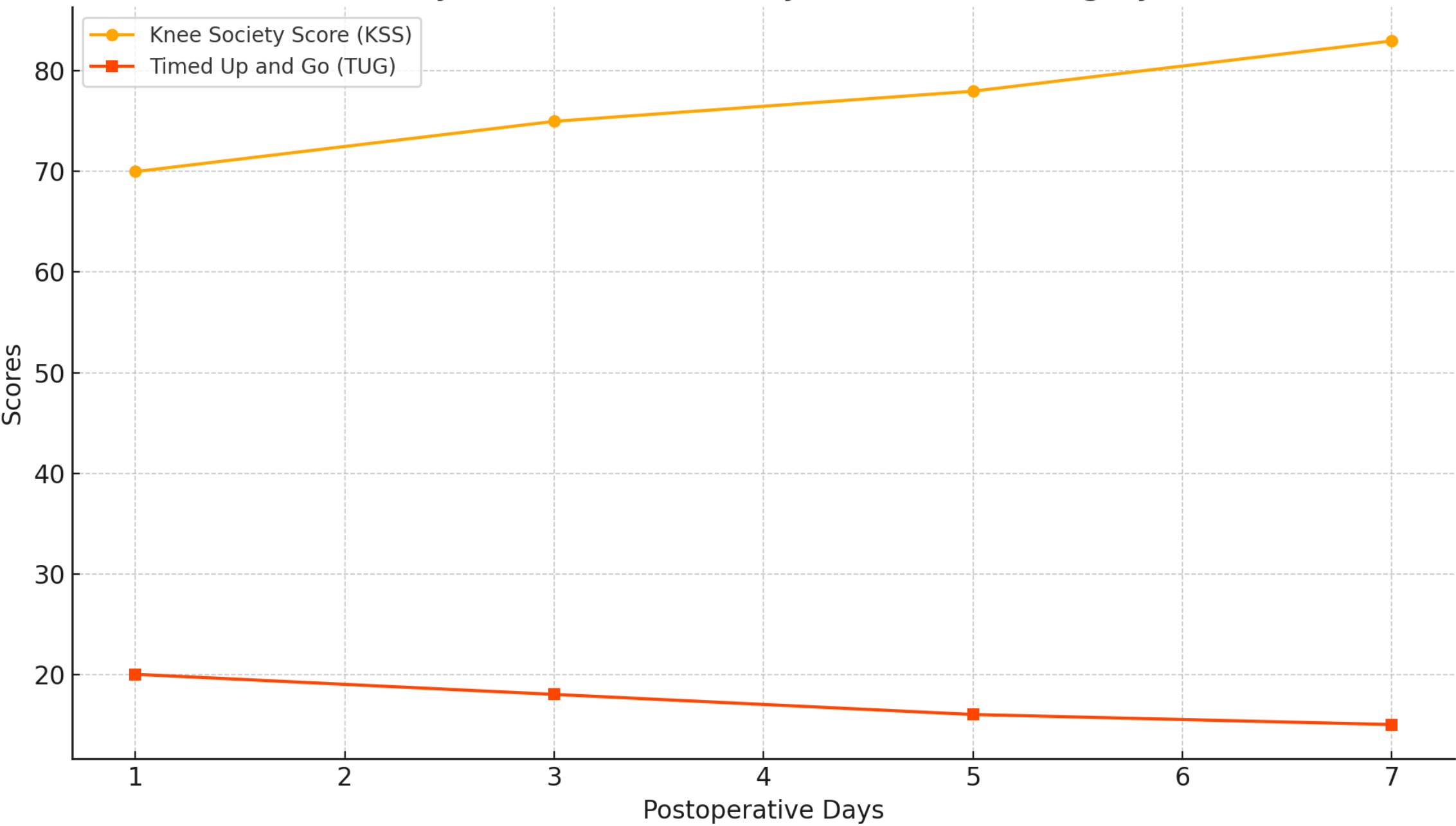


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Daily Functional Recovery Scores After Surgery



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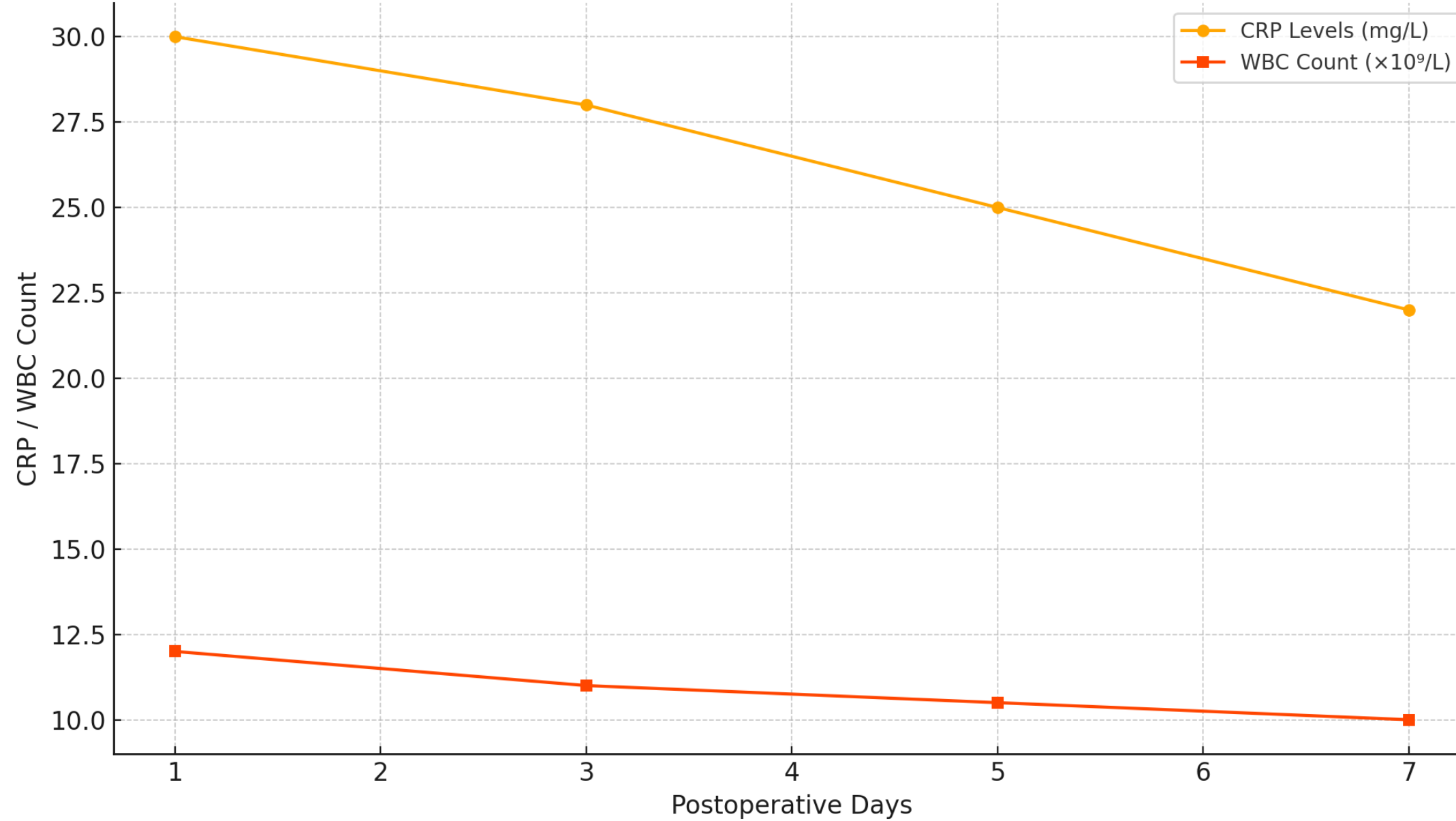
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Trend of Inflammatory Markers After Surgery



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CONCLUSION:

Postoperative blood values, particularly hemoglobin, hematocrit, CRP, and WBC counts, have a significant effect on the daily functional recovery of patients following TKA. Monitoring these parameters can provide valuable insights into the recovery process, potentially guiding personalized postoperative care strategies to enhance patient outcomes. Further research is warranted to develop targeted interventions based on these findings. Based on these findings, further research with more parameters is needed to develop targeted interventions.



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Keywords:

Complete Blood Count (CBC), Hemoglobin, Hematocrit, C-Reactive Protein, White Blood Cell Count (WBC), Knee Society Score (KSS), Timed Up and Go (TUG) test



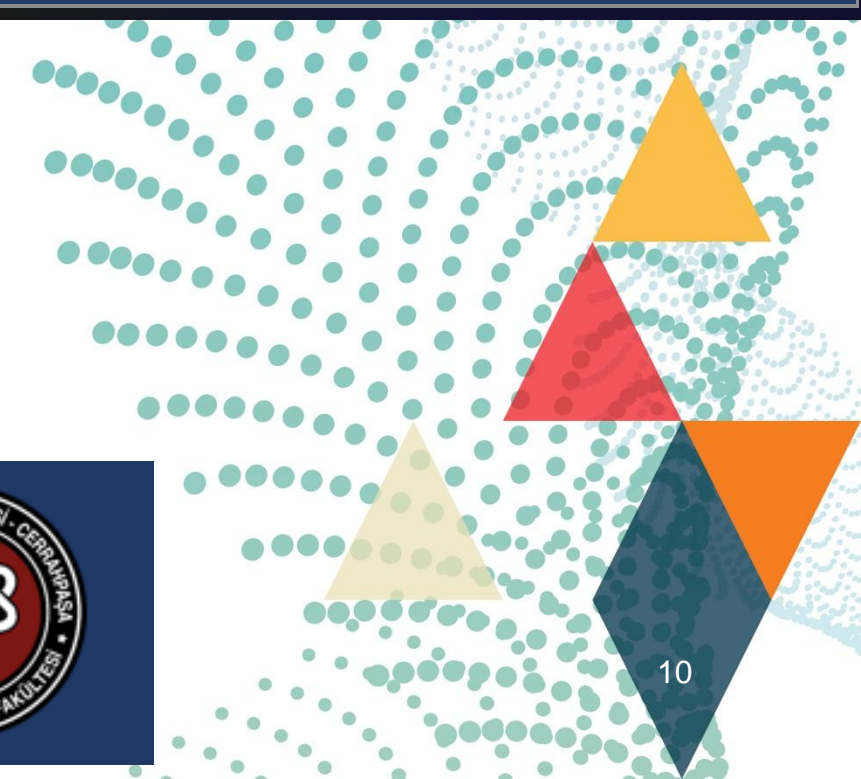
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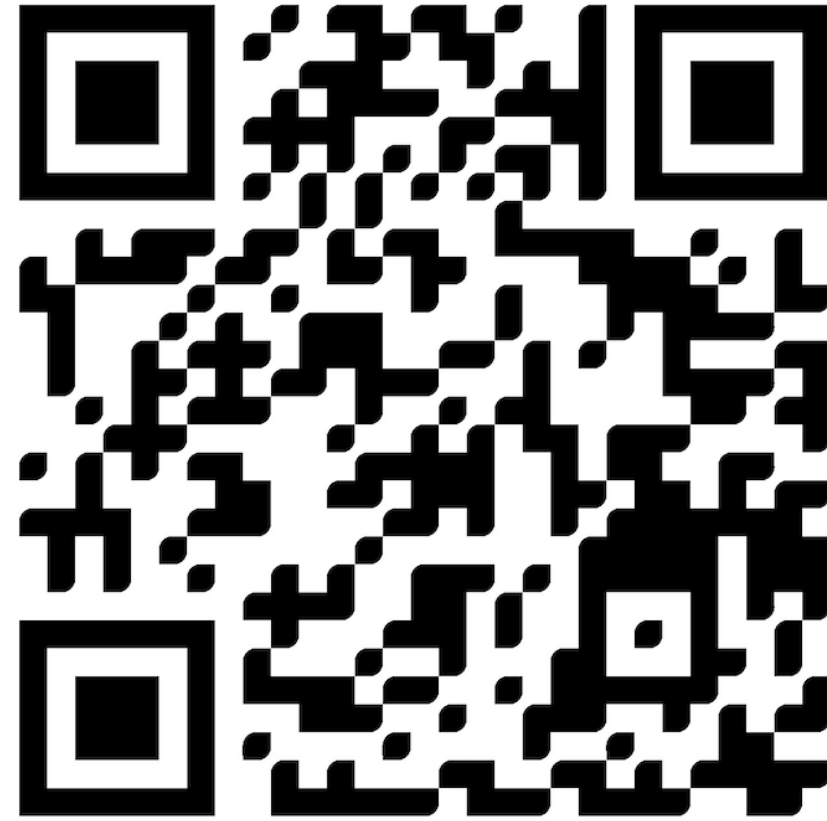
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