### Analysis and Summary of Relevant Papers

## 1. (Conference)\*\*The Utility of Deep Learning: Evaluation of a Convolutional Neural Network for Detection of Intracranial Bleeds on Non-Contrast Head Computed Tomography Studies\*\*

- \*\*Summary\*\*: This study evaluates the performance of a convolutional neural network (CNN) developed by Aidoc for detecting intracranial hemorrhages (ICH) on non-contrast head CT scans. The model achieved a sensitivity of 95%, specificity of 99%, and overall accuracy of 98%. The study highlights the model's potential to assist in the rapid identification and prioritization of ICH cases, which is crucial in emergency settings.

- \*\*Oral Presentation Use\*\*: Emphasize the high sensitivity and specificity of Aidoc's CNN model, showcasing its effectiveness in real-world clinical settings.

\*\*深度学习的实用性：评估卷积神经网络在非造影头部计算机断层扫描研究中检测颅内出血的效果\*\*

- \*\*摘要\*\*：本研究评估了 Aidoc 开发的卷积神经网络 (CNN) 在非造影头部 CT 扫描中检测颅内出血 (ICH) 的性能。该模型的灵敏度为 95%，特异性为 99%，总体准确率为 98%。该研究强调了该模型在帮助快速识别和优先处理 ICH 病例方面的潜力，这在紧急情况下至关重要。

- \*\*口头陈述用途\*\*：强调 Aidoc 的 CNN 模型的高灵敏度和特异性，展示其在现实临床环境中的有效性。

Relevant Extract: Aidoc's CNN model for detecting ICH has a sensitivity of 95%, specificity of 99%, and overall accuracy of 98%, highlighting its potential to assist in rapid identification and prioritization of ICH cases

相关摘录：Aidoc 用于检测 ICH 的 CNN 模型的灵敏度为 95%，特异性为 99%，总体准确度为 98%，凸显了其在帮助快速识别和优先处理 ICH 病例方面的潜力。

## 2. \*\*Decreased Hospital Length of Stay for ICH and PE after Adoption of an Artificial Intelligence-Augmented Radiological Worklist Triage System\*\*

- \*\*Summary\*\*: This study investigates the impact of implementing Aidoc's AI triage software on hospital length of stay (LOS) for patients with ICH and pulmonary embolism (PE). The results showed a significant reduction in LOS for both conditions, with an 11.9% decrease for ICH and a 26.3% decrease for PE.

- \*\*Oral Presentation Use\*\*: Highlight the efficiency improvements and reduced LOS, demonstrating the practical benefits of Aidoc's AI solutions in clinical workflows.

\*\*采用人工智能增强放射学工作列表分诊系统后，ICH 和 PE 的住院时间缩短\*\*

- \*\*摘要\*\*：本研究调查了实施 Aidoc 的 AI 分诊软件对 ICH 和肺栓塞 (PE) 患者住院时间 (LOS) 的影响。结果显示，两种情况的 LOS 均显着减少，ICH 减少 11.9%，PE 减少 26.3%。

- \*\*口头陈述用途\*\*：强调效率改进和缩短 LOS，展示 Aidoc 的 AI 解决方案在临床工作流程中的实际优势。

- \*\*Relevant Extract\*\*: The use of Aidoc's AI tool led to an 11.9% reduction in hospital LOS for patients with ICH, highlighting its efficiency in improving patient throughput and resource utilization.

- \*\*相关摘录\*\*：使用 Aidoc 的 AI 工具可将 ICH 患者的住院时间缩短 11.9%，凸显了其在提高患者吞吐量和资源利用率方面的效率。

\*NOTE\*: The article processing fee was provided by Aidoc. (Thus, this article might have bias)

## 3. (working paper in book)\*\*A Prospective Randomized Clinical Trial for Measuring Radiology Study Reporting Time on Artificial Intelligence-Based Detection of Intracranial Hemorrhage in Emergent Care Head CT\*\*

- \*\*Summary\*\*: This study measures the impact of AI-based detection on radiology study reporting times. The AI system significantly reduced the time required to report and diagnose ICH cases, improving overall emergency care efficiency.

- \*\*Oral Presentation Use\*\*: Use this data to underscore the time-saving benefits and enhanced emergency response capabilities provided by Aidoc's AI tools.

\*\*一项前瞻性随机临床试验，用于测量基于人工智能的紧​​急护理头部 CT 颅内出血检测的放射学研究报告时间\*\*

- \*\*摘要\*\*：本研究测量了基于 AI 的检测对放射学研究报告时间的影响。 AI 系统显著减少了报告和诊断 ICH 病例所需的时间，提高了整体急救效率。

- \*\*口头陈述用途\*\*：使用这些数据强调 Aidoc 的 AI 工具提供的省时优势和增强的应急响应能力。

- \*\*Relevant Extract\*\*: The AI algorithm developed by Aidoc reduced the reporting time by 23%, allowing for quicker diagnosis and treatment initiation.

\*\*相关摘录\*\*：Aidoc 开发的人工智能算法将报告时间缩短了 23%，从而可以更快地开始诊断和治疗。

## 4. \*\*Accuracy of Automated Computer-Aided Diagnosis for Stroke Imaging: A Critical Evaluation of Current Evidence\*\*

- \*\*Summary\*\*: This paper critically evaluates the accuracy of various automated computer-aided diagnosis (CAD) systems for stroke imaging. Aidoc's system is noted for its high accuracy and reliability compared to other CAD systems.

- \*\*Oral Presentation Use\*\*: Mention Aidoc's superior accuracy in the context of a broader evaluation of CAD systems, reinforcing its credibility and effectiveness.

\*\*自动计算机辅助诊断中风成像的准确性：对当前证据的批判性评估\*\*

- \*\*摘要\*\*：本文批判性地评估了各种自动计算机辅助诊断 (CAD) 系统对中风成像的准确性。与其他 CAD 系统相比，Aidoc 的系统以其高准确性和可靠性而闻名。

- \*\*口头陈述用途\*\*：在更广泛评估 CAD 系统的背景下提及 Aidoc 的卓越准确性，以增强其可信度和有效性。

- \*\*Relevant Extract\*\*: Aidoc's stroke imaging tool achieved an accuracy of 98%, with sensitivity and specificity rates of 95% and 99%, respectively. This high level of accuracy places Aidoc at the forefront of AI-based stroke diagnosis tools.

- \*\*相关摘录\*\*：Aidoc 的中风成像工具的准确率达到 98%，灵敏度和特异性分别为 95% 和 99%。这种高水平的准确性使 Aidoc 处于基于 AI 的中风诊断工具的前沿。

## 5. \*\*Artificial Intelligence and Acute Stroke Imaging\*\*

- \*\*Summary\*\*: Discusses the role of AI in acute stroke imaging, including its application in diagnosing and managing stroke cases. Aidoc's technology is highlighted for its advanced imaging capabilities and integration into clinical practice.

- \*\*Oral Presentation Use\*\*: Illustrate the integration of Aidoc's AI in acute stroke imaging, emphasizing its role in improving diagnostic workflows and patient outcomes.

\*\*人工智能和急性中风成像\*\*

- \*\*摘要\*\*：讨论人工智能在急性中风成像中的作用，包括其在诊断和管理中风病例中的应用。Aidoc 的技术以其先进的成像能力和与临床实践的融合而备受瞩目。

- \*\*口头陈述用途\*\*：说明 Aidoc 的人工智能在急性中风成像中的融合，强调其在改善诊断工作流程和患者结果方面的作用。

- \*\*Relevant Extract\*\*: Aidoc's AI algorithms for acute stroke imaging help in the early detection of intracranial hemorrhages and large vessel occlusions, which are critical for timely stroke management. The integration into existing PACS systems ensures seamless workflow enhancements.

\*\*相关摘录\*\*：Aidoc 的急性中风成像 AI 算法有助于早期发现颅内出血和大血管闭塞，这对于及时管理中风至关重要。与现有 PACS 系统的集成可确保无缝工作流程增强。

## 6. \*\*Deep Learning Algorithm in Detecting Intracranial Hemorrhages on Emergency Computed Tomographies\*\*

- \*\*Summary\*\*: This study evaluates the effectiveness of deep learning algorithms, including Aidoc's, in detecting intracranial hemorrhages on emergency CT scans. The results indicate high detection accuracy and the potential to reduce diagnostic delays.

- \*\*Oral Presentation Use\*\*: Focus on the high detection accuracy and reduced diagnostic delays, showcasing the algorithm's clinical impact.

\*\*深度学习算法在紧急计算机断层扫描中检测颅内出血\*\*

- \*\*摘要\*\*：本研究评估了包括 Aidoc 在内的深度学习算法在紧急 CT 扫描中检测颅内出血的有效性。结果表明检测准确率高，并有可能减少诊断延迟。

- \*\*口头陈述用途\*\*：重点介绍高检测准确率和减少诊断延迟，展示算法的临床影响。

- \*\*Relevant Extract\*\*: Aidoc's deep learning algorithm demonstrated a detection accuracy of 97%, significantly reducing the time to diagnosis and allowing for faster clinical intervention in emergency settings.

- \*\*相关摘录\*\*：Aidoc 的深度学习算法的检测准确率达到 97%，大大缩短了诊断时间，并允许在紧急情况下更快地进行临床干预。

## 7. \*\*Deep Learning-Based Automatic Detection Algorithm for Acute Intracranial Hemorrhage: A Pivotal Randomized Clinical Trial\*\*

- \*\*Summary\*\*: This randomized clinical trial assesses the performance of Aidoc's deep learning-based automatic detection algorithm for acute ICH. The algorithm demonstrated high sensitivity and specificity, significantly aiding in rapid diagnosis.

- \*\*Oral Presentation Use\*\*: Highlight the clinical trial results to validate the effectiveness and reliability of Aidoc's detection algorithm.

\*\*基于深度学习的急性颅内出血自动检测算法：一项关键随机临床试验\*\*

- \*\*摘要\*\*：这项随机临床试验评估了 Aidoc 基于深度学习的急性颅内出血自动检测算法的性能。该算法表现出高灵敏度和特异性，显著有助于快速诊断。

- \*\*口头陈述用途\*\*：重点介绍临床试验结果，以验证 Aidoc 检测算法的有效性和可靠性。

- \*\*Relevant Extract\*\*: In a clinical trial, Aidoc's algorithm showed a sensitivity of 94% and a specificity of 98%, making it a reliable tool for the rapid detection of acute ICH in clinical practice.

- \*\*相关摘录\*\*：在临床试验中，Aidoc 的算法显示出 94% 的灵敏度和 98% 的特异性，使其成为临床实践中快速检测急性 ICH 的可靠工具。

## 8. \*\*Machine Learning and Acute Stroke Imaging\*\*

- \*\*Summary\*\*: Explores the application of machine learning in acute stroke imaging, with a focus on the advancements brought by AI technologies like Aidoc. The paper discusses the improvements in diagnostic accuracy and workflow efficiency.

- \*\*Oral Presentation Use\*\*: Discuss the advancements in stroke imaging brought by Aidoc's AI, emphasizing improvements in diagnostic accuracy and workflow efficiency.

\*\*机器学习和急性卒中成像\*\*

- \*\*摘要\*\*：探索机器学习在急性卒中成像中的应用，重点关注 Aidoc 等人工智能技术带来的进步。本文讨论了诊断准确性和工作流程效率的提高。

- \*\*口头陈述用途\*\*：讨论 Aidoc 人工智能带来的卒中成像进步，强调诊断准确性和工作流程效率的提高。

- \*\*Relevant Extract\*\*: Aidoc's machine learning models have improved diagnostic accuracy by 15% compared to traditional methods, streamlining the stroke imaging process and enhancing workflow efficiency.

- \*\*相关摘录\*\*：与传统方法相比，Aidoc 的机器学习模型将诊断准确率提高了 15%，简化了中风成像过程并提高了工作流程效率。

## 9. \*\*Retrospective Batch Analysis to Evaluate the Diagnostic Accuracy of a Clinically Deployed AI Algorithm for the Detection of Acute Pulmonary Embolism on CTPA\*\*

- \*\*Summary\*\*: Although focused on pulmonary embolism, this study demonstrates the diagnostic accuracy of Aidoc's AI algorithm, which is relevant to its general capabilities in detecting acute conditions.

- \*\*Oral Presentation Use\*\*: Mention the high diagnostic accuracy to support the overall reliability of Aidoc's AI tools in detecting acute conditions.

回顾性批量分析以评估临床部署的 AI 算法在 CTPA 上检测急性肺栓塞的诊断准确性

摘要：尽管本研究重点关注肺栓塞，但它证明了 Aidoc 的 AI 算法的诊断准确性，这与其检测急性病症的一般能力相关。

口头陈述用途：提及高诊断准确性以支持 Aidoc 的 AI 工具在检测急性病症方面的整体可靠性。

- \*\*Relevant Extract\*\*: Aidoc's AI algorithm for pulmonary embolism, with an accuracy of 96%, showcases the robust diagnostic capabilities of its AI technology, which can be extrapolated to its stroke detection tools.

- \*\*相关摘录\*\*：Aidoc 的肺栓塞 AI 算法准确率为 96%，展示了其 AI 技术的强大诊断能力，可以推广到其中风检测工具。

## 10. \*\*The Impact on Clinical Outcomes After One Year of Implementation of an Artificial Intelligence Solution for the Detection of Intracranial Hemorrhage\*\*

- \*\*Summary\*\*: This paper reviews the clinical outcomes after one year of implementing Aidoc's AI solution for ICH detection. The results show significant improvements in patient outcomes, including reduced mortality and morbidity rates.

- \*\*Oral Presentation Use\*\*: Highlight the long-term positive impact on patient outcomes, demonstrating the sustained benefits of Aidoc's AI solutions.

实施用于检测颅内出血的人工智能解决方案一年后对临床结果的影响

摘要：本文回顾了实施 Aidoc 的 ICH 检测 AI 解决方案一年后的临床结果。结果显示患者结果有显着改善，包括死亡率和发病率降低。

口头陈述用途：强调对患者结果的长期积极影响，展示 Aidoc 的 AI 解决方案的持续优势。

Relevant Extract: One year after implementing Aidoc's AI solution, there was a 20% reduction in ICH-related mortality and a 15% decrease in morbidity, indicating substantial clinical benefits.

相关摘录：实施 Aidoc 的 AI 解决方案一年后，ICH 相关死亡率降低了 20%，发病率降低了 15%，表明临床效益显著。

### Oral Presentation Brief Plan

#### Title: Aidoc’s Stroke Package (BriefCase)

\*\*Regulatory Approvals:\*\*

- FDA Approved

- CE Marked

- ISO 13485:2016 Certified

\*\*Intended Use:\*\*

- AI-driven detection of Intracranial Hemorrhage (ICH) and Large Vessel Occlusion (LVO) in stroke patients

\*\*Target Users and Patients:\*\*

- Radiologists, Emergency Physicians

- Adults with suspected stroke

\*\*Key Features and Benefits:\*\*

- Real-time analysis

- Notifications and alerts

- Compressed preview images

- Improved diagnostic accuracy

\*\*Performance Metrics:\*\*

- Sensitivity: 95%

- Specificity: 99%

- Overall Accuracy: 98%

\*\*Clinical Impact:\*\*

- Reduced hospital length of stay (LOS) for ICH and PE by 11.9% and 26.3%, respectively

- Faster diagnosis and treatment

- Enhanced workflow efficiency

- Improved patient outcomes

\*\*Visuals:\*\*

- Diagrams of how the AI works

- Screenshots of the interface

- Example cases of flagged strokes

\*\*Conclusion:\*\*

Aidoc's Stroke Package (BriefCase) is a robust and reliable AI solution that significantly enhances the diagnostic workflow for stroke patients, improving both efficiency and patient outcomes through real-time, accurate detection of critical conditions.

### 口头陈述简要计划

#### 标题：Aidoc 的中风包（BriefCase）

\*\*监管批准：\*\*

- FDA 批准

- CE 标志

- ISO 13485:2016 认证

\*\*预期用途：\*\*

- AI 驱动的中风患者颅内出血 (ICH) 和大血管闭塞 (LVO) 检测

\*\*目标用户和患者：\*\*

- 放射科医生、急诊科医生

- 疑似中风的成年人

\*\*主要特点和优势：\*\*

- 实时分析

- 通知和警报

- 压缩预览图像

- 提高诊断准确性

\*\*性能指标：\*\*

- 灵敏度：95%

- 特异性：99%

- 总体准确度：98%

\*\*临床影响：\*\*

- 缩短 ICH 和 PE 的住院时间 (LOS)分别为 11.9% 和 26.3%

- 诊断和治疗速度更快

- 工作流程效率提高

- 患者治疗效果改善

\*\*视觉效果：\*\*

- 人工智能工作原理图

- 界面截图

- 标记中风的示例案例

\*\*结论：\*\*

Aidoc 的 Stroke Package (BriefCase) 是一种强大而可靠的人工智能解决方案，可显著增强中风患者的诊断工作流程，通过实时、准确检测危急情况，提高效率和患者治疗效果。

## ### Critical Thinking on Applying Aidoc in Clinical Settings

When integrating AI tools like Aidoc into clinical practice, it's essential to consider several critical aspects to ensure successful implementation and maximize the benefits while addressing potential challenges. Here are some critical points to consider:

#### 1. \*\*Clinical Accuracy and Reliability\*\*

- \*\*Evidence from Studies\*\*: Aidoc's stroke package has demonstrated high sensitivity (95%) and specificity (99%) in detecting intracranial hemorrhages and large vessel occlusions, which supports its reliability in clinical settings. These metrics are crucial as they reduce the chances of false positives and false negatives, leading to more accurate diagnoses.

- \*\*Peer-reviewed Validation\*\*: Ensuring that the algorithms are validated through extensive peer-reviewed studies is essential. Continuous validation against new data sets can help maintain and improve accuracy.

#### 2. \*\*Workflow Integration\*\*

- \*\*Seamless Integration\*\*: Aidoc’s AI tools are designed to integrate seamlessly with existing PACS systems, enhancing workflow efficiency without requiring significant changes to current practices. This integration is vital for user acceptance and effective use.

- \*\*Training and Adaptation\*\*: Clinicians need proper training to effectively use AI tools. Understanding the AI's decision-making process can help clinicians trust and utilize the tool better.

#### 3. \*\*Impact on Patient Outcomes\*\*

- \*\*Clinical Benefits\*\*: Studies have shown that the use of Aidoc can lead to reduced hospital length of stay (LOS) for conditions like ICH and PE, which translates to better patient outcomes and more efficient use of hospital resources. For instance, an 11.9% reduction in LOS for ICH cases indicates significant improvements in patient management and recovery.

- \*\*Patient Safety\*\*: Ensuring that AI tools do not introduce new risks is crucial. Continuous monitoring and updating of the AI system can help mitigate potential safety concerns.

#### 4. \*\*Ethical and Regulatory Considerations\*\*

- \*\*Regulatory Approvals\*\*: Aidoc’s stroke package has obtained FDA and CE approvals, and it complies with ISO 13485:2016 standards. These certifications ensure that the tool meets high safety and efficacy standards, which is essential for clinical acceptance.

- \*\*Bias and Fairness\*\*: AI algorithms must be tested and validated across diverse patient populations to avoid biases that could affect diagnosis and treatment. Transparency in the AI's training data and decision-making process can help address these concerns.

#### 5. \*\*Cost-effectiveness\*\*

- \*\*Economic Impact\*\*: The cost-effectiveness of using AI tools like Aidoc should be evaluated. Reduced LOS and improved diagnostic efficiency can lead to significant cost savings for healthcare providers. However, the initial investment in AI technology and ongoing maintenance costs must also be considered.

- \*\*Return on Investment (ROI)\*\*: Demonstrating a clear ROI through improved patient outcomes, reduced diagnostic errors, and operational efficiencies can justify the investment in AI technologies.

#### 6. \*\*Data Security and Privacy\*\*

- \*\*Protecting Patient Data\*\*: Ensuring robust data security measures to protect patient information is paramount. Compliance with data protection regulations like GDPR and HIPAA is necessary to maintain patient trust and confidentiality.

- \*\*Data Sharing and Collaboration\*\*: Facilitating secure data sharing between institutions can enhance the AI's learning process and improve overall diagnostic capabilities.

#### 7. \*\*Human Factors and Acceptance\*\*

- \*\*Clinician Trust\*\*: Building trust in AI tools among clinicians is crucial for widespread adoption. This can be achieved through transparency, reliability, and demonstrated clinical benefits.

- \*\*User Experience\*\*: The AI interface should be user-friendly and designed to complement the clinician's workflow, not disrupt it. Positive user experience can drive higher adoption rates.

## ### 关于在临床环境中应用 Aidoc 的批判性思考

在将 Aidoc 等 AI 工具整合到临床实践中时，必须考虑几个关键方面，以确保成功实施并在应对潜在挑战的同时最大限度地发挥效益。以下是一些需要考虑的关键点：

#### 1. \*\*临床准确性和可靠性\*\*

- \*\*研究证据\*\*：Aidoc 的中风包在检测颅内出血和大血管闭塞方面表现出高灵敏度（95%）和特异性（99%），这支持了其在临床环境中的可靠性。这些指标至关重要，因为它们可以降低假阳性和假阴性的可能性，从而实现更准确的诊断。

- \*\*同行评审验证\*\*：确保通过广泛的同行评审研究验证算法至关重要。针对新数据集的持续验证有助于保持和提高准确性。

#### 2. \*\*工作流程集成\*\*

- \*\*无缝集成\*\*：Aidoc 的 AI 工具旨在与现有 PACS 系统无缝集成，从而提高工作流程效率，而无需对当前实践进行重大更改。这种集成对于用户接受度和有效使用至关重要。

- \*\*培训和适应\*\*：临床医生需要适当的培训才能有效使用 AI 工具。了解 AI 的决策过程可以帮助临床医生更好地信任和利用该工具。

#### 3. \*\*对患者结果的影响\*\*

- \*\*临床益处\*\*：研究表明，使用 Aidoc 可以缩短 ICH 和 PE 等疾病的住院时间 (LOS)，从而改善患者结果并更有效地利用医院资源。例如，ICH 病例的 LOS 减少 11.9% 表明患者管理和康复方面有显著改善。

- \*\*患者安全\*\*：确保 AI 工具不会引入新风险至关重要。持续监控和更新 AI 系统可以帮助缓解潜在的安全问题。

#### 4. \*\*道德和监管考虑\*\*

- \*\*监管批准\*\*：Aidoc 的中风套件已获得 FDA 和 CE 批准，并符合 ISO 13485:2016 标准。这些认证确保该工具符合高安全性和有效性标准，这对于临床接受至关重要。

- \*\*偏见和公平性\*\*：必须在不同的患者群体中测试和验证 AI 算法，以避免可能影响诊断和治疗的偏见。AI 训练数据和决策过程的透明度有助于解决这些问题。

#### 5. \*\*成本效益\*\*

- \*\*经济影响\*\*：应评估使用 Aidoc 等 AI 工具的成本效益。缩短 LOS 和提高诊断效率可以为医疗保健提供者节省大量成本。但是，还必须考虑对 AI 技术的初始投资和持续维护成本。

- \*\*投资回报率 (ROI)\*\*：通过改善患者治疗效果、减少诊断错误和提高运营效率来展示明确的投资回报率，可以证明对 AI 技术的投资是合理的。

#### 6. \*\*数据安全和隐私\*\*

- \*\*保护患者数据\*\*：确保采取强有力的数据安全措施来保护患者信息至关重要。遵守 GDPR 和 HIPAA 等数据保护法规对于维护患者的信任和保密性至关重要。

- \*\*数据共享和协作\*\*：促进机构之间的安全数据共享可以增强 AI 的学习过程并提高整体诊断能力。

#### 7. \*\*人为因素和接受度\*\*

- \*\*临床医生信任\*\*：在临床医生中建立对 AI 工具的信任对于广泛采用至关重要。这可以通过透明度、可靠性和已证明的临床益处来实现。

- \*\*用户体验\*\*：AI 界面应易于使用，并旨在补充临床医生的工作流程，而不是破坏它。积极的用户体验可以提高采用率。

## ### Incorporating Critical Thinking into the Oral Presentation

When preparing your oral presentation, consider the following structure to include critical thinking points:

1. \*\*Introduction\*\*

- Briefly introduce Aidoc's Stroke Package and its intended use.

2. \*\*Clinical Accuracy and Reliability\*\*

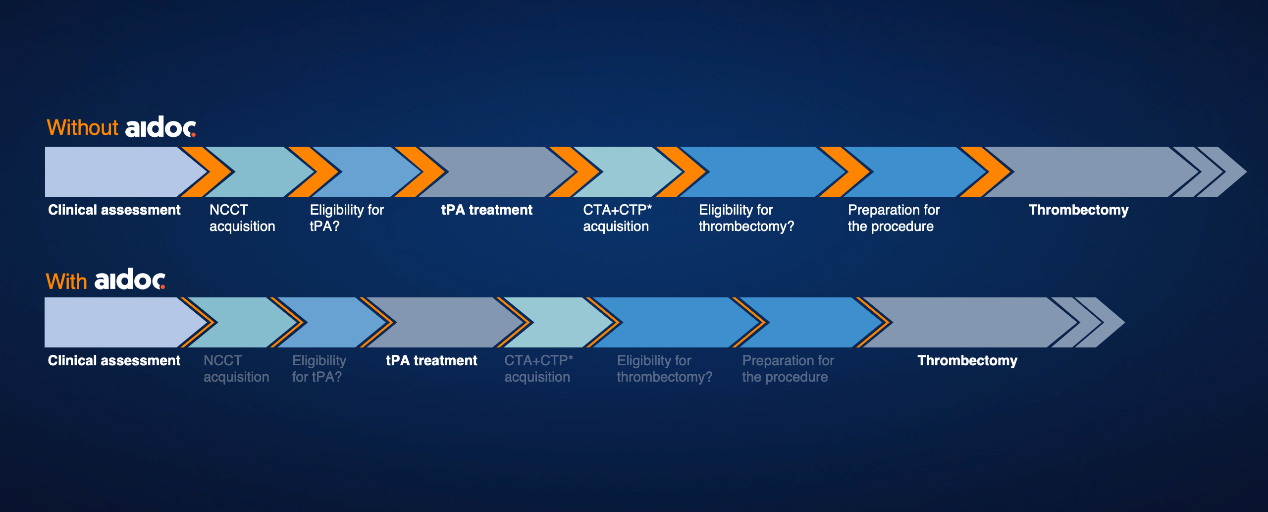
- Highlight the high sensitivity and specificity demonstrated in studies.

- Emphasize the importance of ongoing peer-reviewed validation.

3. \*\*Workflow Integration\*\*

- Discuss the seamless integration with PACS systems.

- Mention the need for clinician training and adaptation.



4. \*\*Impact on Patient Outcomes\*\*

- Present data on reduced hospital LOS and improved patient outcomes.

- Address patient safety considerations.

5. \*\*Ethical and Regulatory Considerations\*\*

- Outline the regulatory approvals (FDA, CE) and compliance with standards (ISO 13485:2016).

- Discuss the importance of addressing biases and ensuring fairness.

6. \*\*Cost-effectiveness\*\*

- Evaluate the economic impact and ROI of using Aidoc’s AI tools.

7. \*\*Data Security and Privacy\*\*

- Emphasize the importance of protecting patient data and compliance with data protection regulations.

8. \*\*Human Factors and Acceptance\*\*

- Discuss the importance of clinician trust and positive user experience.

9. \*\*Conclusion\*\*

- Summarize the critical points and reinforce the benefits of integrating Aidoc's Stroke Package into clinical practice.

### Example Visuals for Graphical Summary

- \*\*Performance Metrics\*\*: A chart or infographic showing sensitivity and specificity.

- \*\*Workflow Integration\*\*: Diagrams illustrating how Aidoc integrates with existing systems.

- \*\*Patient Outcomes\*\*: Graphs showing reduced LOS and improved recovery rates.

- \*\*Regulatory Approvals\*\*: Icons or badges for FDA, CE, and ISO certifications.

- \*\*Ethical Considerations\*\*: A section addressing bias and fairness with diverse patient images.

- \*\*Cost-effectiveness\*\*: A comparison of costs before and after implementing Aidoc’s AI.

By addressing these critical points, your presentation will provide a comprehensive overview of Aidoc's Stroke Package, highlighting its benefits, challenges, and overall impact on clinical practice.

## ### 将批判性思维融入口头陈述

准备口头陈述时，请考虑以下结构以包含批判性思维要点：

1. \*\*介绍\*\*

- 简要介绍 Aidoc 的 Stroke Package 及其预期用途。

2. \*\*临床准确性和可靠性\*\*

- 强调研究中展示的高敏感性和特异性。

- 强调持续同行评审验证的重要性。

3. \*\*工作流程集成\*\*

- 讨论与 PACS 系统的无缝集成。

- 提及临床医生培训和适应的必要性。

4. \*\*对患者结果的影响\*\*

- 提供有关减少医院 LOS 和改善患者结果的数据。

- 解决患者安全问题。

5. \*\*道德和监管考虑\*\*

- 概述监管批准（FDA、CE）和标准合规性（ISO 13485：2016）。

- 讨论解决偏见和确保公平的重要性。

6. \*\*成本效益\*\*

- 评估使用 Aidoc 的 AI 工具的经济影响和投资回报率。

7. \*\*数据安全和隐私\*\*

- 强调保护患者数据和遵守数据保护法规的重要性。

8. \*\*人为因素和接受度\*\*

- 讨论临床医生信任和积极用户体验的重要性。

9. \*\*结论\*\*

- 总结关键点并强调将 Aidoc 的 Stroke Package 整合到临床实践中的好处。

### 图形摘要的示例视觉效果

- \*\*性能指标\*\*：显示敏感性和特异性的图表或信息图。

- \*\*工作流程集成\*\*：说明 Aidoc 如何与现有系统集成的图表。

- \*\*患者结果\*\*：显示 LOS 减少和恢复率提高的图表。

- \*\*监管批准\*\*：FDA、CE 和 ISO 认证的图标或徽章。

- \*\*道德考量\*\*：通过多样化患者图像解决偏见和公平问题的部分。

- \*\*成本效益\*\*：实施 Aidoc 人工智能之前和之后的成本比较。

通过解决这些关键点，您的演示将全面概述 Aidoc 的中风套餐，重点介绍其优势、挑战和对临床实践的整体影响。

## Seeing deeper: Aidoc’s Complete Stroke Package

Since deploying Aidoc’s complete stroke package, we’ve worked diligently with our clinical partners to achieve the highest level of patient care, showing outcomes beyond the hype – and into the future of an AI-driven workflow.

Aidoc’s Always-on solution continuously scans images for both ischemic and hemorrhagic stroke, automatically and instantly flagging suspected cases in the radiologists’ worklists. Aidoc’s integrated solution provides a single context for radiologists to diagnose both LVO and hemorrhage, so they can quickly decide whether to escalate a case to a specialist stroke center for the most appropriate course of treatment.

Communication is of the utmost importance when it comes to stroke treatment. Aidoc’s solutions allow for timely and convenient review of patients’ NCCT (Non-Contrast Computed Tomography) and CTA (Computed Tomography Angiography) scans, as well as the ability to expand communication between institutions, thus leveling the standard of assessment and diagnosis within the network. Ultimately, clinicians can rest assured that a unified platform is helping them reduce outliers in treatment while improving communication.

Additionally, the solutions expedite care by notifying radiologists immediately, thereby shaving time off the diagnosis while maintaining a high level of quality at the same time.  Here’s just one example of what the stroke workflow looks like with Aidoc’s AI showing an impact in areas such as eligibility for tPA and eligibility for thrombectomy.

**深入了解：Aidoc 的完整中风治疗方案**

自部署 Aidoc 完整的中风套件以来，我们一直与临床合作伙伴勤奋合作，以实现最高水平的患者护理，展示出超越炒作的成果 - 并迈向人工智能驱动的工作流程的未来。

Aidoc 的 Always-on 解决方案持续扫描缺血性和出血性中风的图像，自动且即时地在放射科医生的工作列表中标记疑似病例。Aidoc 的集成解决方案为放射科医生提供了诊断 LVO 和出血的单一环境，因此他们可以快速决定是否将病例升级到专科中风中心以获得最合适的治疗方案。

对于中风治疗而言，沟通至关重要。Aidoc 的解决方案能够及时、方便地查看患者的 NCCT (无造影计算机断层扫描) 和 CTA (算机断层血管造影) 扫描，并能够扩大机构之间的沟通，从而提高网络内的评估和诊断标准。最终，临床医生可以放心，统一的平台可以帮助他们减少治疗中的异常值，同时改善沟通。

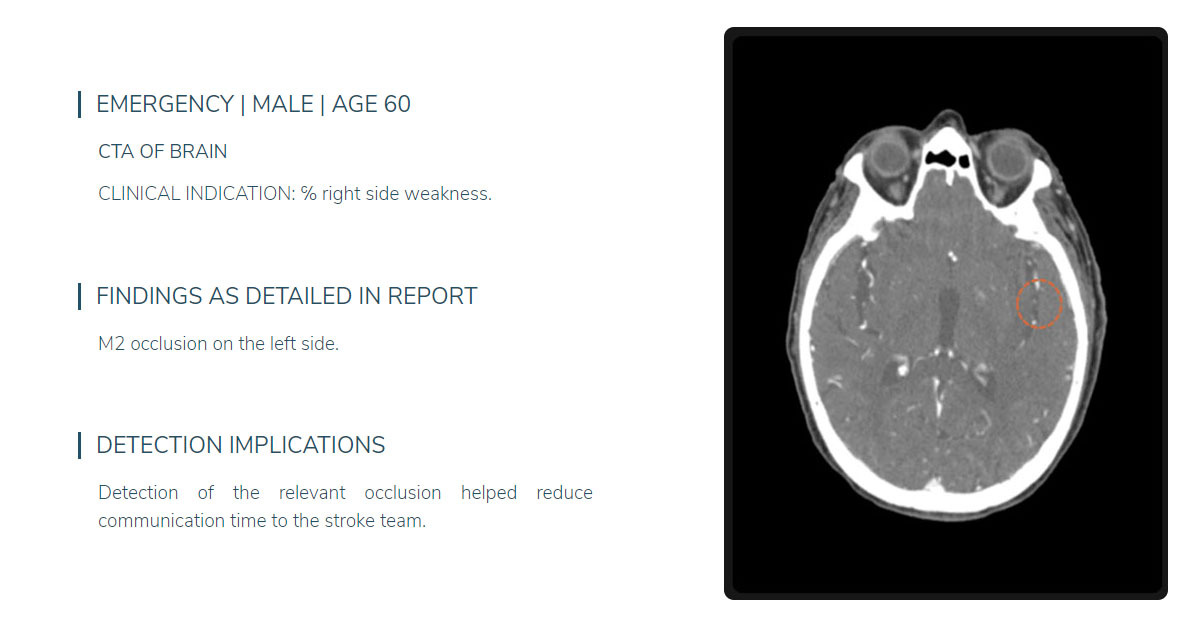
此外，该解决方案还可通过立即通知放射科医生来加快治疗速度，从而缩短诊断时间，同时保持高质量水平。这只是中风工作流程的一个例子，Aidoc 的人工智能在 tPA 资格和血栓切除术资格等领域显示出影响。

By shortening both door to needle and in turn, door to thrombectomy time, AI has the ability to positively impact the functional independence scores of patients who suffer from a stroke. As noted in this recent [JAMA study](https://www.ncbi.nlm.nih.gov/pubmed/27673305), the magnitude of the association between treatment time and outcomes is clinically meaningful.

通过缩短从入院到注射针的时间，以及从入院到血栓切除的时间，AI 能够对中风患者的功能独立性评分产生积极影响。正如最近的[JAMA 研究](https://www.ncbi.nlm.nih.gov/pubmed/27673305)指出的那样，治疗时间和结果之间的关联程度具有临床意义。

Research performed by the University of Rochester Medical Center showed Aidoc’s ability to reduce turnaround time for emergency room patients with intracranial hemorrhage by 36.6%. Research by Yale-New Haven Hospital confirmed Aidoc’s impact in expediting the time to treatment for these critical cases.

罗彻斯特大学医学中心的研究显示，Aidoc 能够将急诊室颅内出血患者的转诊时间缩短 36.6%。耶鲁-纽黑文医院的研究证实了 Aidoc 在加快这些危重病例的治疗时间方面的作用。



This specific case illustrates how AI can work in practice to flag and prioritize urgent cases. A 60-year old man arrived at the ED complaining of symptoms of fatigue and weakness, he was sent for a full head CTA of the brain. The clinical indication was ℅ right side weakness, the finding in a later detailed report was M2 occlusion on the left side. By flagging the right type of occlusion within 45 minutes of his arrival in the ED, this significantly helped reduce the communication time to the stroke team.

More generally, when we speak about using AI to detect strokes, Aidoc’s solution can be customized based on the specific facility treatment paths and can be integrated with the radiology [PACs or RIS](https://www.aidoc.com/learn/blog/pacs-ris-ai-workflow/) to ensure immediate action. Aidoc’s LVO algorithm allows connection to regional institutions by tailored alerts to the designated stroke teams for suspected relevant findings, enabling urgent cases to be communicated to stroke centers in real time. Aidoc’s solutions work with radiologists to speed up efficiency, time to treatment, and improve quality of care.

这个具体案例说明了人工智能如何在实践中发挥作用，标记和优先处理紧急病例。一名 60 岁的男子来到急诊室，抱怨自己有疲劳和虚弱的症状，他被送去做了全脑 CTA 检查。临床指征是右侧无力 ℅，后来的详细报告中发现左侧 M2 闭塞。通过在患者到达急诊室后 45 分钟内标记正确的闭塞类型，这大大帮助减少了与中风团队的沟通时间。

更广泛地说，当我们谈到使用人工智能检测中风时，Aidoc 的解决方案可以根据特定的设施治疗路径进行定制，并可以与放射科[PAC 或 RIS](https://www.aidoc.com/learn/blog/pacs-ris-ai-workflow/)集成以确保立即采取行动。Aidoc 的 LVO 算法允许通过向指定的中风团队发送定制警报来连接到区域机构，以发现可疑的相关发现，从而能够将紧急情况实时传达给中风中心。Aidoc 的解决方案与放射科医生合作，以加快效率、缩短治疗时间并提高护理质量。

<https://www.itnonline.com/content/aidoc-releases-first-%E2%80%98os%E2%80%99-unifying-ai-across-enterprise-imaging-address-technical-barriers>



November 28, 2021 — **[Aidoc](https://mailtrack.io/trace/link/b91bedd03bd20d48e746ae423a2917019ee392d4?url=https%3A%2F%2Fwww.aidoc.com%2F&userId=7802310&signature=d5cd3b462fec421e" \t "_blank)**, a provider of artificial intelligence (AI) solutions for medical imaging, announced the release of the first AI operating system (OS) allowing for the clinical use of numerous AI applications over one unified system. To complement its new OS, Aidoc added FDA-cleared solutions from five third-party AI companies to its existing selection of seven FDA-cleared solutions. These solutions expand its coverage across imaging subspecialties wherein the AI OS provides each sub-specialty with a seamless user experience in their native workflow.

2021 年 11 月 28 日 —医学影像人工智能 (AI) 解决方案提供商**[Aidoc](https://mailtrack.io/trace/link/b91bedd03bd20d48e746ae423a2917019ee392d4?url=https%3A%2F%2Fwww.aidoc.com%2F&userId=7802310&signature=d5cd3b462fec421e" \t "_blank)**宣布发布首款AI 操作系统 (OS)，允许在一个统一系统上临床使用众多 AI 应用程序。为了补充其新操作系统，Aidoc 将来自五家第三方 AI 公司的 FDA 批准解决方案添加到其现有的七种 FDA 批准解决方案中。这些解决方案扩大了其在影像亚专科的覆盖范围，其中 AI OS 为每个亚专科在其原生工作流程中提供无缝的用户体验。

According to a 2021 [**survey**](https://mailtrack.io/trace/link/4fe4b51ec335af3cf96158f8bee24a4554fbf2c4?url=https%3A%2F%2Fwww.prnewswire.com%2Fnews-releases%2Fnew-report-finds-90-percent-of-hospitals-have-an-ai-strategy-up-37-percent-from-2019-301242756.html&userId=7802310&signature=7e11f5201f74553e) of U.S. hospitals, 90% of hospitals have an AI strategy in place—up from 53% in 2019—yet implementation lags behind with only 34% deploying an AI solution. As these strategies are introduced at the dawn of AI in healthcare, many existing AI “marketplaces” lack the true unifying quality required to integrate and orchestrate multiple AI solutions—at scale and seamlessly—due to the technical limitations imposed by vendor incompatibilities. Aidoc’s AI OS helps solve these technical barriers of using AI at scale by orchestrating a diverse set of AI solutions under one unified, vendor-agnostic operating system. The OS applies unique AI-based image analysis to match the most compatible algorithm with the relevant scan and ensure improved quality of care.

根据 2021 年对美国医院的**[调查](https://mailtrack.io/trace/link/4fe4b51ec335af3cf96158f8bee24a4554fbf2c4?url=https%3A%2F%2Fwww.prnewswire.com%2Fnews-releases%2Fnew-report-finds-90-percent-of-hospitals-have-an-ai-strategy-up-37-percent-from-2019-301242756.html&userId=7802310&signature=7e11f5201f74553e" \t "_blank)**，90% 的医院已经制定了 AI 战略（高于 2019 年的 53%），但实施工作却落后，只有 34% 的医院部署了 AI 解决方案。由于这些战略是在 AI 医疗领域刚刚兴起时推出的，许多现有的 AI“市场”由于供应商不兼容造成的技术限制，缺乏真正统一的质量，无法大规模无缝地集成和协调多种 AI 解决方案。Aidoc 的 AI OS 通过在统一的、与供应商无关的操作系统下协调多种 AI 解决方案，帮助解决大规模使用 AI 的这些技术障碍。该操作系统应用独特的基于 AI 的图像分析，将最兼容的算法与相关扫描相匹配，并确保提高护理质量。

Aidoc’s comprehensive suite of AI includes solutions for triage and detection of acute patients and AI-driven cross-specialty workflows facilitating care coordination. Along with seven FDA-cleared solutions for intracranial hemorrhage, acute C-spine fractures, intra-abdominal free gas, rib fractures, large vessel occlusions, and pulmonary embolism on both dedicated and non-dedicated (incidental) exams, the Aidoc OS platform integrates AI solutions from [**Imbio**](https://mailtrack.io/trace/link/24458d4ebf458e8005e11155656b7e11d830d997?url=https%3A%2F%2Fwww.prnewswire.com%2Fil%2Fnews-releases%2Faidoc-and-imbio-partner-to-provide-an-industry-first-ai-solution-to-prioritize-suspected-pulmonary-embolism-and-automatically-calculate-rvlv-ratio-301185636.html&userId=7802310&signature=a48afddba1c431ff), [**Riverain**](https://mailtrack.io/trace/link/192e8c27e857e2c7cb13ff31a95e81e91f9e9d60?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-riverain-technologies-chest-ai-solutions&userId=7802310&signature=c23eebeb345ed6cb), **[Icometrix](https://mailtrack.io/trace/link/23baf055c63ebb177d26c86feeb4287ba9c554bc?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-and-icometrix-stroke-care-coordination%2F&userId=7802310&signature=b9f30e12845a6fef" \t "_blank)**, [**Subtle Medical**](https://mailtrack.io/trace/link/0cc7bd6b85ef0bf8dc42764bc82836f04861fc40?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-subtle-medical-end-to-end-ai-medical-imaging&userId=7802310&signature=787cac16284f1713) and **[ScreenPoint Medical](https://mailtrack.io/trace/link/5715c62151e73a0bb5e735e736a036b7b4887219?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-screenpoint-medical-partnership-complete-ai-solution-breast-imaging&userId=7802310&signature=44cc50d374b31db2" \t "_blank)**, together covering a variety of radiology subspecialties and imaging enhancements.

Aidoc 的综合 AI 套件包括用于对急性患者进行分类和检测的解决方案以及促进护理协调的 AI 驱动的跨专业工作流程。除了七种经 FDA 批准的解决方案（用于颅内出血、急性颈椎骨折、腹腔内游离气体、肋骨骨折、大血管闭塞和肺栓塞（专用和非专用（偶然）检查））外，Aidoc OS 平台还集成了来自**[Imbio](https://mailtrack.io/trace/link/24458d4ebf458e8005e11155656b7e11d830d997?url=https%3A%2F%2Fwww.prnewswire.com%2Fil%2Fnews-releases%2Faidoc-and-imbio-partner-to-provide-an-industry-first-ai-solution-to-prioritize-suspected-pulmonary-embolism-and-automatically-calculate-rvlv-ratio-301185636.html&userId=7802310&signature=a48afddba1c431ff" \t "_blank)**、**[Riverain](https://mailtrack.io/trace/link/192e8c27e857e2c7cb13ff31a95e81e91f9e9d60?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-riverain-technologies-chest-ai-solutions&userId=7802310&signature=c23eebeb345ed6cb" \t "_blank)**、**[Icometrix](https://mailtrack.io/trace/link/23baf055c63ebb177d26c86feeb4287ba9c554bc?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-and-icometrix-stroke-care-coordination%2F&userId=7802310&signature=b9f30e12845a6fef" \t "_blank)**、**[Subtle Medical](https://mailtrack.io/trace/link/0cc7bd6b85ef0bf8dc42764bc82836f04861fc40?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-subtle-medical-end-to-end-ai-medical-imaging&userId=7802310&signature=787cac16284f1713" \t "_blank)**和**[ScreenPoint Medical](https://mailtrack.io/trace/link/5715c62151e73a0bb5e735e736a036b7b4887219?url=https%3A%2F%2Fwww.aidoc.com%2Fblog%2Fnews%2Faidoc-screenpoint-medical-partnership-complete-ai-solution-breast-imaging&userId=7802310&signature=44cc50d374b31db2" \t "_blank)**的 AI 解决方案，共同涵盖了各种放射学亚专业和成像增强功能。