

**AN OVERVIEW OF VADAMARGA: CONCEPT, RELEVANCE AND APPLICATIONS IN
AYURVEDA****Dr. Akanksha Alawa^{*1}, Vd. Shubham Shukla², Dr. Pawan Kirar³, Dr. Salil Jain⁴**^{*1}PG Scholar, Pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal M.P.²PG Scholar, Pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal M.P.³Lecturer, Pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal M.P.⁴Reader, Pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal M.P.***Corresponding Author: Dr. Akanksha Alawa**

PG Scholar, Pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal M.P.

DOI: <https://doi.org/10.5281/zenodo.22159706>**How to cite this Article:** Dr. Akanksha Alawa^{*1}, Vd. Shubham Shukla², Dr. Pawan Kirar³, Dr. Salil Jain⁴. (2026). An Overview of Vadamarga: Concept, Relevance And Applications In Ayurveda. World Journal of Pharmaceutical and Medical Research, 12(9), 82–88.

This work is licensed under Creative Commons Attribution 4.0 International license.

Article Received on 05/08/2026

Article Revised on 24/08/2026

Article Published on 01/09/2026

1. ABSTRACT

Samhita represents a systematic compilation of knowledge essential for human well-being and learning. *Charaka Samhita* describes various methods of knowledge acquisition, including *Adhyayana*, *Adhyapana*, and *Tadvidya Sambhasha*. These methods encourage scholarly discussion, debate, and critical learning. The principles of *Vadamarga*, described in *Rogabhishagjitiya Adhyaya* of *Charaka Samhita*, provide a structured approach for conducting and evaluating scholarly debates.

KEYWORDS: *Vada*, *Vadamarga*, *Tadvidya Sambhasha*.**INTRODUCTION**

Vadamarga represents a structured approach to knowledge acquisition through regulated scholarly debate and logical discourse. *Acharya Charaka* emphasizes the importance of intellectual competence in achieving excellence in clinical practice. Scholarly discussion serves as an important means of exchanging knowledge, developing reasoning skills, clarifying concepts, and resolving doubts, all of which are essential for physicians and medical science. In *Charaka Samhita*, the framework for conducting such intellectual discourse is described under *Vadamarga*, highlighting its continuing relevance to *Ayurvedic* education and clinical reasoning. There are three methods for obtaining knowledge.^[1]

तत्रोपायाननुव्याख्यास्यामः—अध्ययनम्, अध्यापनं,
तद्विद्यासम्भाषा चेतत उपायाः | (Ca.Vi – 8/6)

The text identifies *Adhyayana* (study), *Adhyapana* (teaching), and *Tadvidya-sambhasha* (scholarly discussion) as important means of knowledge acquisition. *Tadvidya-sambhasha* is further described in two forms—*Sandhaya-sambhasha* and *Vigruhya-sambhasha*. For the systematic conduct and evaluation of such debates, 44 *Vadamargajnana Hetu Padas* has mentioned.^[2]

These provide a structured framework for logical argumentation, critical examination, and effective scholarly communication among physicians.

इमानि तु खलु पदानि भिषग्वदमार्गज्ञािर्गमधिर्म्यानि
िवन्तत। तद्यर्ा— वादः, द्रव्यम्, रुणः, कमग, सामातयं,
ववशेषः, समवायः, प्रनतज्ञा, स्ापा, प्रनतष्टापा,
हेतुर्दगष्टततः, उपियः,
निर्मिम्, उत्तरम्, भसद्िततः, शब्दः, प्रत्यक्षम्,
अुमािम्, ऐनतह्यम्, औपम्यम्, संशयः, प्रयोजिम्,
सव्यभिचारः, न्जज्ञासा, व्यवसायः, अर्गप्रान्तः, सम्िवः,
अुयोज्यः, अिुयोज्यः, अुयोरः, प्रत्युयोरः,
वाक्यदोषः, वाक्यप्रशंसा, छलम्, जानतः, अतीतकालः,
अिार्तकालः, पररहारः, प्रनतज्ञाहानिः, अभ्युज्ञा, हेत्वततरम्,
अर्ागततरम्, निग्रहस्ािम् | c.vi.8/27)

1. Vada (Debate)^[3]

Vada is a scholarly discussion between two individuals with opposing views to establish the truth through logical reasoning. It is of two types:

- *Jalpa* (Positive Discourse): Presenting and defending one's own opinion while logically refuting the opponent's view.

- *Vitanda* (Negative Discourse): Criticizing the opponent's opinion without presenting or defending one's own standpoint.

Example: In a debate on the existence of *Purvajanma* (rebirth), if both participants defend their own views and refute each other, it is *Jalpa*. If one participant only criticizes the other's arguments without offering an alternative view, it is *Vitanda*.

2. *Dravya* (Substance)^[4]

Dravya is the substratum in which *Guna* (properties) and *Karma* (actions) reside. It serves as the inherent (*Samavayi*) causes of its effects.

3. *Guna* (Property)^[5]

Guna is an attribute that exists inseparably in a *Dravya*. It is devoid of action and acts as a non-inherent (*Asamavayi*) cause.

4. *Karma* (Action)^[6]

Karma refers to activity or movement present in a *Dravya*. It is responsible for *Samyoga* (union) and *Vibhaga* (separation).

5. *Samanya* (Similarity/Generality)^[7]

Samanya denotes similarity or commonness among objects, which promotes increase (*Vridhhi*) and unifies them under a common category. It is of three types: *Dravya Samanya*, *Guna Samanya*, and *Karma Samanya*.

6. *Vishesha* (Dissimilarity/Particularity)^[8]

Vishesha represents dissimilarity or distinction, which leads to decrease (*Kshaya*) and differentiates one entity from another. It is the opposite of *Samanya*. *Vishesha* is of three types: *Dravya Vishesha*, *Guna Vishesha*, and *Karma Vishesha*.

7. *Samavaya* (Inherence)^[9]

Samavaya refers to the eternal and inseparable relationship between a *Dravya* and its *Guna*, such as *Prithvi* and *Gandha*. Since no substance exists without its inherent properties, this relationship is considered permanent.

8. *Pratijna* (Proposition)^[10]

Pratijna is the statement or claim that is to be established or proved in a debate.

Example: "Purusha is eternal."

9. *Sthapana* (Justification)^[11]

Sthapana is the logical establishment of a *Pratijna* using *Hetu* (reason), *Drishtanta* (example), *Upanaya* (application), and *Nigamana* (conclusion).

Example: The proposition "Purusha is eternal" is justified by stating that it is unborn, like the sky, and therefore eternal.

10. *Pratisthapana* (Counter-argument)^[12]

Pratisthapana is the presentation of a logical argument that opposes and refutes the opponent's proposition by

establishing an alternative viewpoint.

11. *Hetu* (Reason/Cause)^[13]

Hetu is the logical reason or basis used to establish knowledge or support a proposition. It is derived through four sources: *Pratyaksha* (perception), *Anumana* (inference), *Aitihya* (tradition), and *Aupamya* (analogy).

12. *Drishtanta* (Example/Illustration)^[14]

Drishtanta is a familiar example used to clarify and support an argument, making it easily understandable to both learned and unlearned individuals.

Example: Just as the sun illuminates the world, the knowledge of *Sankhya* illuminates the intellect.

13. *Upanaya* (Application/Correlation)

Upanaya is the application of an established example to the subject under discussion to demonstrate the validity of the argument.

14. *Nigamana* (Conclusion)

Nigamana is the final conclusion drawn logically from the proposition, reason, example, and application.

15. *Uttara* (Rejoinder)

Uttara is the reply given to an opponent by pointing out similarities or dissimilarities in their reasoning to challenge or clarify the argument.

For example, if one argues that diseases arise from causes similar to their nature, citing *Sitaka* (cold disorder) caused by cold exposure, the opponent may counter that conditions such as burning sensation, heat, sloughing, and suppuration arise from causes dissimilar to cold. Such a contradictory response is known as *Uttara*.

16. *Siddhanta* (Theory)^[15]

Siddhanta is a truth or principle that is established after repeated examination, analysis, and reasoning. It is of four types:

- ***Sarvatantra Siddhanta* (Universal Theory):** A principle that is accepted by all schools of thought. For example, every disease has a cause, and curable diseases have remedies.
- ***Pratitantra Siddhanta* (Specific Theory):** A principle that is accepted by a particular school and may not be accepted by others. For example, Ayurveda considers six *Rasa* and five sense organs, while other systems may describe them differently.
- ***Adhikarana Siddhanta* (Implied Theory):** A principle that is established indirectly through the meaning of another statement. For example, the existence of *Atma*, *Karma Phala*, and the afterlife is understood from the statement that a liberated person does not perform further actions due to absence of desires.
- ***Abhyupagama Siddhanta* (Hypothetical Theory):** A principle temporarily accepted during debate for discussion, even though it is not yet fully proven. For example, accepting *Dravya*, *Guna*, or *Virya* as

predominant for the purpose of argument and examination.

17. *Shabda* (Word)^[16]

Shabda is a combination of letters that conveys a meaning. It is of four types:

- ***Drishtārtha* (Observable Meaning):** Words that indicate things which can be directly observed. For example, aggravated *Dosha* due to causative factors are pacified by ^[18]appropriate treatment, and sense objects are perceived through sense organs.
- ***Adrishtārtha* (Unobservable Meaning):** Words related to phenomena that cannot be directly observed, such as life after death and salvation.
- ***Satya* (Factual/Consistent):** Statements that are true and consistent with facts, such as the principles of Ayurveda, treatments for curable diseases, and results of actions.
- ***Anruta* (False/Inconsistent):** Statements that are contrary to facts, such as denying the existence of medical knowledge and treatment principles.

18. *Pratyaksha* (Direct Perception)^[17]

Pratyaksha is the knowledge obtained directly through the self (*Atma*) and sense organs.

Experiences like happiness, pain, desire, and aversion are perceived by the self, while sound and other sensory objects are perceived through sense organs.

19. *Anumana* (Inference)^[18]

Anumana is knowledge obtained through reasoning and logical inference based on a definite relationship. For example, digestion indicates the presence of *Agni*, exercise indicates strength, and sound indicates the existence of auditory organs.

20. *Aitihiya* (Tradition/Authoritative Statement)^[19]

Aitihiya refers to knowledge obtained from authoritative sources or traditional statements, such as the teachings of the *Vedas* transmitted by Lord Brahma.

21. *Aupamya* (Analogy)^[20]

Aupamya is the explanation of an unknown concept through similarity with a known object. For example, *Dandaka* disease is compared with a stick (*Danda*), *Dhanustambha* with a bow (*Dhanu*), and a health provider with an archer.

22. *Samshaya* (Doubt)^[21]

Samshaya refers to a state of uncertainty or indecision regarding a particular subject. **Example:** When some individuals with signs of longevity and proper therapeutic measures still die early, while others without such factors live longer, doubt arises regarding the existence of untimely death.

23. *Prayojana* (Purpose/Object)^[22]

Prayojana is the objective or purpose for which different measures are adopted to achieve a desired outcome.

Example: If premature death is possible, the use of

longevity-promoting medicines and avoidance of unwholesome habits may help prevent it.

24. *Savyabhichara* (Statement with Exception/Uncertain Statement)^[23]

Savyabhichara refers to a statement that has exceptions or lacks certainty. Such statements may create doubt regarding the applicability of a particular concept or treatment.

Example: Uncertainty may arise about whether a specific medicine is suitable for a particular disease.

25. *Jijnasa* (Inquiry)^[24]

Jijnasa is the desire or attempt to investigate and examine a particular subject.

Example: Examination and evaluation of medicines.

26. *Vyavasaya* (Determination/Decision)^[25]

Vyavasaya means a definite decision or conclusion made after proper examination.

Example: Determining that a disease is purely *Vatika* in nature and identifying the appropriate medicine for its treatment.

27. *Arthaprapti* (Implied Meaning)^[26]

Arthaprapti refers to understanding an unstated meaning that is logically conveyed by a given statement.

Example: The statement “the disease should not be managed with saturating therapy”

implies that desaturation therapy should be adopted. Similarly, “he should not eat during the day” implies that eating is permitted during the night.

28. *Sambhava* (Source/Origin)^[27]

Sambhava refers to the source or origin from which something arises.

Example: The six *Dhatus* are considered the source of the embryo; unwholesome factors lead to diseases, while wholesome factors contribute to health.

29. *Anuyojya* (Questionable/Defective Statement)^[28]

Anuyojya is a statement that is incomplete, unclear, or has an unspecified meaning, leading to further questioning.

Example: If someone states that “the disease should be treated with evacuation therapy,” it raises a question regarding whether *Vamana* (emesis) or *Virechana* (purgation) should be used.

30. *Ananuyojya* (Unquestionable Statement)^[29]

Ananuyojya refers to a statement that cannot be challenged or questioned due to its clear and definite nature.

Example: A statement that a particular disease is incurable.

31. *Anuyoga* (Scriptural Enquiry/Question)^[30]

Anuyoga is the act of asking questions related to a text or its concepts during scholarly discussion to assess knowledge, understanding, explanation, or contradiction.

Example: In the statement “*Atma* is eternal,” asking

“What is the reason behind this?” is *Anuyoga*.

32. *Pratyanuyoga* (Counter-question/Counter Enquiry)^[31]

Pratyanuyoga refers to questioning the basis or reason behind a question asked during discussion.

Example: Asking “What is the purpose or reason for this question?” is *Pratyanuyoga*.

33. *Vakyadosha* (Syntactical Defect)^[32]

Vakyadosha refers to defects in a statement that affect its clarity or meaning. It is of five types:

1. ***Nyuna* (Deficiency):** Absence of any essential component of an argument such as proposition, reason, example, correlation, or conclusion. It may also occur when multiple reasons are required but only one is provided.
2. ***Adhika* (Superfluity):** Inclusion of unnecessary or repeated information in a statement. It includes irrelevant references or repetition of already mentioned concepts. It is of two types:
 - o ***Artha Punarukta* (Semantic Repetition):** Repeating the same meaning using different words, such as *Bhesaja*, *Aushadha*, and *Sadhana*.
 - o ***Shabda Punarukta* (Verbal Repetition):** Repeating the same word multiple times, such as *Bhesaja*, *Bhesaja*.
3. ***Anarthaka* (Meaninglessness):** A statement that lacks meaningful content or consists of meaningless combinations of words or letters.

D) *Aparthaka* (Deprivation of Meaning)

Aparthaka refers to a statement in which individually meaningful words fail to convey a proper meaning due to the absence of mutual connection between them.

Example: A combination of unrelated words such as *Chakra-na*, *Krava*, *Mamsa*, *Vajra*, *Nishakara*.

E) *Viruddha* (Incongruity/Contradiction)

Viruddha refers to a statement that is inconsistent or contradictory in relation to an example, theory, or accepted convention. Conventions are of three types:

- ***Ayurvedika Samaya* (Ayurvedic Convention):** Principles accepted in Ayurveda, such as the concept of four components of therapy (*Chatushpada*).
 - ***Yajnika Samaya* (Ritual Convention):** Principles related to rituals, such as the practice of animal sacrifice in specific ritual contexts.
 - ***Moksha Shastrika Samaya* (Ethical Convention):** Principles related to ethics, such as non-violence (*Ahimsa*) towards all living beings.
- A statement that contradicts these accepted conventions is considered *Viruddha*. These constitute the major types of syntactical defects (*Vakyadosha*).

34. *Vakyaaprashamsa* (Syntactical Commendability)^[33]

Vakyaaprashamsa refers to a well-constructed statement that is free from defects. It should be free from *Nyuna* (deficiency), *Adhika* (superfluity), *Aparthaka*

(deprivation of meaning), and *Viruddha* (incongruity), while being meaningful, clear, and easily understandable. Such a statement leaves no scope for further questioning and is considered ideal.

35. *Chala* (Casuistry/Knavery/Deceitful Disputation)^[34]

Chala refers to misleading or deceptive reasoning in which confusion is created by misinterpreting words or using irrelevant arguments that only appear meaningful. It is of two types:

- ***Vakchala* (Verbal Knavery):** Misleading an argument by deliberately twisting the meaning of words.
- ***Samanyachala* (General Knavery):** Creating confusion by misinterpreting a general statement or applying it incorrectly.
- **A) *Vakchala* (Verbal Knavery)**
- *Vakchala* is a deceptive argument that arises by deliberately twisting or misinterpreting the meaning of words.

Example: If someone calls a physician *Navatantra* (well-versed in a new text), the physician deliberately interprets *Nava* as "nine" instead of "new" and argues on that incorrect meaning. This misleading use of words is known as *Vakchala*.

- **B) *Samanyachala* (General Knavery)**
- *Samanyachala* is a deceptive argument in which a general statement is wrongly interpreted to create confusion.

Example: If someone states that medicine relieves disease, the opponent argues that since both medicine and disease exist, one existing thing cannot remove another, and therefore even cough should cure wasting. Such faulty interpretation of a general statement is called *Samanyachala*.

36. *Ahetu* (Hetvabhasa – Fallacious Reason)^[35]

Ahetu, also known as *Hetvabhasa*, refers to an invalid or fallacious reason that appears logical but fails to establish the intended conclusion. It is of three types

37. *Atitakala* (Delayed Statement)^[36]

Atitakala refers to a statement or argument that is presented after the appropriate time, making it ineffective or unacceptable.

Example: If a debater fails to refute the opponent at the proper moment and raises the argument later, it loses its value.

38. *Upalambha* (Defective Causality)^[37]

Upalambha is the identification or pointing out of defects in the reasoning or causality of an opponent's argument.

39. *Parihara* (Refutation/Correction)^[38]

Parihara is the correction or refutation of the defects pointed out in a proposition by providing proper reasoning.

Example: Since the signs of life remain only while the

Atma is present in the body and disappear after it leaves, *Atma* is considered distinct from the body and eternal.

40. *Pratijnahani* (Loss of Proposition)^[39]

Pratijnahani occurs when a person abandons or contradicts the original proposition after being challenged by the opponent.

Example: A person first claims that *Atma* is eternal but later accepts that it is non-eternal.

41. *Abhyanuajna* (Admission of Argument)^[40]

Abhyanuajna is the acceptance of both favourable and unfavourable points during a debate.

42. *Hetvantara* (Irrelevant Reason/Fallacy of Reason)^[41]

Hetvantara refers to giving an irrelevant or different reason instead of the appropriate one to support an argument.

43. *Arthantara* (Irrelevant Statement)^[42]

Arthantara is the introduction of an unrelated topic or statement instead of the relevant one.

Example: Explaining the symptoms of *Prameha* when the discussion is about the symptoms of *Jvara*.

44. *Nigrahasthana* (Grounds of Defeat)^[43]

Nigrahasthana refers to the situations that lead to defeat in a debate. These include failure to understand a point even after repeated explanation, asking irrelevant questions, or failing to ask relevant questions when required.

DISCUSSION

Role of *Tarka* and *Pramana* in Epistemic Validation

In the *Vadamarga* system, *Tarka* (logical reasoning) helps in removing doubts and reaching a possible conclusion. It is especially useful when *Pratyaksha* (direct observation) or *Anumana* (inference) alone cannot provide a clear answer. In this way, *Tarka* is similar to the logical and analytical reasoning used in modern clinical and laboratory research.

Pramana refers to the reliable means of obtaining valid knowledge. Ayurvedic and *Nyaya* texts describe different types of *Pramana*, such as *Pratyaksha* (perception), *Anumana* (inference), *Upamana* (comparison), *Shabda* (reliable verbal testimony), and *Yukti* (logical combination of different factors).

These different *Pramanas* helped Ayurvedic scholars understand concepts, examine evidence, and evaluate treatments. When *Tarka* and *Pramana* are used together with *Vadamarga*, they provide a systematic way to examine classical Ayurvedic principles as well as new clinical observations and experiences.

Therapeutic and Clinical Relevance of *Vadamarg*

Vadamarga supports clinical decision-making by facilitating differential diagnosis, treatment planning,

evaluation of drug efficacy, and ethical assessment of treatment protocols. Its application in examining *Siddhanta*, *Chikitsa Sutra*, and differing views among *Acharyas* highlights its relevance in promoting rational and evidence-oriented clinical practice.

Vadamarga extends beyond philosophical discussions and has considerable relevance in clinical practice. In *Ayurveda*, *Roga-Nidana* (diagnosis) and *Chikitsa* (treatment) are determined according to the individual characteristics and condition of the patient. In situations involving diagnostic uncertainty or multiple therapeutic options, systematic discussion and reasoning through *Vadamarga* can support appropriate clinical decisions. Historically, physicians used debates, *Samsad* (assemblies), and logical discussions to examine treatment-related issues before arriving at therapeutic decisions.

This dialogue-based approach has similarities with modern Evidence-Based Medicine (EBM), which combines clinical expertise, patient preferences, and the best available evidence to guide treatment. In *Ayurvedic* practice, *Vadamarga* encouraged ethical reasoning, consensus, and accuracy in therapeutic planning. Its application in contemporary practice may therefore help integrate classical *Ayurvedic* principles with emerging clinical evidence.

CONCLUSION

Vadamarga provides a rational framework for critical thinking, knowledge validation, and clinical decision-making in *Ayurveda*. Its integration with modern evidence-based approaches can strengthen *Ayurvedic* research, education, and clinical practice.

Limitations and Challenges

- Students have limited training in debate and logical reasoning.
- Understanding of *Pramana* theory is often inadequate.
- Modern research methods may be used without proper *Ayurvedic* context.
- There is a lack of standard methods for conducting *Vadamarga*-based research.
- *Vadamarga* is not yet widely included in modern *Ayurvedic* teaching and research.

REFERENCES

1. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. *Vimana Sthana*. 8: 6.
2. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. *Vimana Sthana*. 8: 27.
3. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023.

- 87

- Vimana Sthana. 8: 55.
34. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 56.
35. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 57.
36. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 58.
37. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 59.
38. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 60.
39. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 61.
40. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 62.
41. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 63.
42. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 64.
43. Pandey K, Chaturvedi G, editors. *Charaka Samhita of Agnivesha, Vidyotini Hindi Commentary*. Varanasi: Chaukhambha Bharati Academy; 2023. Vimana Sthana. 8: 65.