NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE (NCISM) · THIRD PROFESSIONAL BAMS

Vranitagara (NLHT 3.1)

व्रणितागार · व्रणितोपासनीयाध्यायः (सुश्रुतसंहिता सूत्रस्थानम् १९)

Complete Study Notes, Verified Classical Texts, Evidence-Graded Comparison with an Ideal Surgical Ward, and Instructor-Ready Teaching Guide

Curriculum Metadata

Department No. 1: Shalya Tantra (General Surgery)
Subject Code: `AYUG-ST` (Paper I, Term I)
Topic 3: Nirjantukarana (Sterilization)
Activity Code: `NLHT 3.1` (**Vranitagara**)
Course Outcomes: `CO1`, `CO7` · **Priority:** Must Know (`MK`)
Controlling Syllabus: NCISM `AYUG-ST` (2021–22 batch; 2024–25 onwards)

Instructor & Class Session

Assistant Professor: Dr. Shivakumara B. V.
College: Rajashekaraiah Institute of Ayurveda Medical Sciences and Hospital (RIAMSH), Solur, Magadi Taluk, Karnataka
Class Date: 18 November 2026 · **Time:** 4:00 pm to 4:30 pm
Prepared: November 2026 · **Web Sources Verified:** 18 November 2026

Study & Epistemological Note for BAMS Learners

This document is prepared specifically for classroom instruction and independent examination study of **NCISM Activity NLHT 3.1 ("Vranitagara")**. To uphold scientific and textual integrity, these notes explicitly separate four registers of knowledge throughout every section: **(1) Classical textual statements** (what **Suśruta Saṃhitā** and **Caraka Saṃhitā** actually state), **(2) Traditional commentary** (explanations by **Ḍalhaṇa**, **Cakrapāṇidatta**, and **Hārāṇacandra**), **(3) Current biomedical evidence and Indian/international guidelines** (MoHFW NCDC, NHSRC Kayakalp & NQAS, WHO, CDC, and peer-reviewed reviews), and **(4) Teaching comparisons or inferences** (reasoned pedagogical parallels, explicitly flagging where classical practices reflect historical/cultural contexts rather than validated modern infection-control protocols).

Regulatory & Clinical Practice Disclaimer

Classical descriptions of wound chambers, fumigation (**dhūpana**), directional orientation, and protective rituals are studied for historical, conceptual, and textual competency under `AYUG-ST`. **Operational surgical-ward infection prevention, sterilization, waste segregation, and patient care in any hospital or teaching clinic must strictly follow applicable Indian laws and statutory rules (including Bio-Medical Waste Management Rules, 2016/2018), Ministry of Health and Family Welfare (MoHFW) / NCDC / NHSRC standards, current WHO/CDC clinical guidance, and local Hospital Infection Control Committee (HICC) policy.**

Controlling syllabus verified identically against local NCISM file (`3. NCISM_IIIBAMS_AyUG-ST.pdf`) and official NCISM portal (`https://ncismindia.org/3.%20NCISM_IIIBAMS_AyUG-ST.pdf`). Classical Sanskrit verified against CCRAS-NIIMH e-Saṃhitā (1938 **Nirṇaya Sāgara** / Yādavjī Trikamjī Ācārya edition).

Table of Contents

1 How This Topic Fits the NCISM Syllabus 3
1.1 Verified NCISM Syllabus Locations and Exact Wording 3
1.2 Official NCISM Course Outcomes Mapped to NLHT 3.1 (CO1 and CO7) 3
1.3 Decoding NCISM Table 3 Codes for NLHT 3.1 3
2 Proposed Study Learning Outcomes 4
3 Spelling, Pronunciation, Definition, Scope, and Terminology 4
3.1 Spelling and Transliteration Note 4
3.2 Etymology, Definition, and Scope 4
3.3 Key Classical and Modern Terminology 5
4 Classical Textual Foundation and Evidence-Quality Hierarchy 5
4.1 How “Vranitagara” Relates to **Suśruta Saṃhitā** Sūtrasthāna Chapter 19 5
4.2 Primary Editions and Textual Variants Used in These Notes 6
4.3 Source-Quality Hierarchy and Four-Register Analytical Framework 6
5 Verified Classical Sources: **Suśruta Saṃhitā** & Cross-References 7
5.1 Chapter Opening & Chamber Selection (Su.Sū. 19.1–4) 7
5.2 Bed, Space, Orientation, and Safety (Su.Sū. 19.5–6) 8
5.3 Attendants, Supportive Conversation, and Daytime Sleep (Su.Sū. 19.7–10) 8
5.4 Wound Protection, Posture, and Rest Restrictions (Su.Sū. 19.11–13) 9
5.5 Avoiding Sexual Arousal & Prohibited Dietary Regimen (Su.Sū. 19.14–19) 9
5.6 Environmental, Behavioral, and Digestive Hazards (Su.Sū. 19.20–22) 10
5.7 Personal Cleanliness, Ward Decor, Protective Rites, and Fumigation (Su.Sū. 19.23–31) 11
5.8 Recommended Diet & Concluding Prognostic Principles (Su.Sū. 19.32–37) 13
5.9 Directly Connected Classical Passages (Su.Sū. 5.18, 5.34 & Ca.Sū. 15.6–7) 13
6 Structured Thematic Explanation of **Vraṇitāgāra** 15
6.1 Site, Architectural Setting, and Microclimate (Su.Sū. 19.3–4, 20; Ca.Sū. 15.6) 15
6.2 Bed, Space, Comfort, and Orientation (Su.Sū. 19.5–6) 15
6.3 Wound Protection, Mobility Limits, and Avoiding Daytime Sleep (Su.Sū. 19.9–13, 30) 15
6.4 Attendants, Nursing, and Psychosocial / Narrative Care (Su.Sū. 19.7–8, 25–26, 35) 15
6.5 Diet, Hydration, and Digestive Protection (Su.Sū. 19.16–22, 32–35a) 15
6.6 Personal Hygiene, Grooming, and Behavioral Restraint (Su.Sū. 19.14–15, 23) 16
6.7 Historical Protective Practices: **Rakṣākarma**, **Dhūpana**, and Amulets (Su.Sū. 19.23–29, 31; 5.18) 16
7 Modern Ideal Surgical-Ward Overview 17
7.1 Patient Placement, Ward Layout, Access, Privacy, and Safety 17
7.2 Environmental Cleaning, Disinfection, and Waste Management 17
7.3 Hand Hygiene, Standard Precautions, and Risk-Based PPE 18
7.4 Instrument Reprocessing & Sterilization (CSSD) 18
7.5 Wound-Care Environment & SSI Prevention 18
7.6 Comfort, Graded Mobility, Nutrition, Communication & Psychosocial Care 18
7.7 Documentation, Observation, Escalation, and Continuity of Care 18
8 Comprehensive Comparison: **Vranitagara** vs. Ideal Surgical Ward 20
9 Critical Comparison: Similar Principle, Historically Specific Practice, and Current Protocol 22
10 Instructor-Ready 1-Hour NLHT 3.1 Session Plan 23
10.1 Session Logistics & Materials 23
10.2 Minute-by-Minute Facilitation Guide (60 Minutes) 23
10.3 Group Allocations and Student Roles 23
10.4 Exit Reflection Prompt (Last 5 Minutes) 23
11 Student Worksheet: Compiling & Comparing **Vranitagara** (NLHT 3.1) 24
12 Assessment Support: Rubric & Formative Questions 25
12.1 Analytic Marking Rubric for NLHT 3.1 (15-Mark Periodical Assessment Scale) 25
12.2 Formative Practice Questions (NCISM Paper I Blueprint Aligned) 25
13 Revision Summary, Glossary, and Viva / Oral-Exam Q&A 27
13.1 One-Page High-Yield Revision Summary 27
13.2 Concise Bilingual Glossary 27
13.3 Likely Viva / Oral-Exam Questions & Model Answers 27
14 References and Further Reading 29

How to Use These Notes Efficiently

- **Before your NLHT 3.1 class:** Read Sections 1–4 and scan the key **ślokas** in Section 5 (Su.Sū. 19.3–10, 23–35).
- **During the 1-hour seminar/tutorial:** Use the **Student Compilation Worksheet** (Section 11) alongside the **Comparison Table** (Section 8) and **Three-Way Analytical Matrix** (Section 9).
- **Before Periodical Assessment 1 (PA 1) & University Exams:** Review the **Revision Summary, Glossary, Viva Q&A** (Section 13), and **Formative MCQs/SAQs** (Section 12).

1 How This Topic Fits the NCISM Syllabus

The National Commission for Indian System of Medicine (NCISM) curriculum for Third Professional Ayurvedacharya (BAMS), **Shalya Tantra (General Surgery)** (AYUG-ST, applicable from the 2021–22 batch from academic year 2024–25 onwards) locates **Vranitagara** at the intersection of surgical asepsis, inpatient ward environment, and professional standards [NCISM 2024, pp. 1, 5–6, 32–33, 230].

1.1 Verified NCISM Syllabus Locations and Exact Wording

Both the supplied local syllabus PDF (3. NCISM_IIIBAMS_AyUG-ST.pdf) and the official online NCISM PDF (https://ncismindia.org/3.%20NCISM_IIIBAMS_AyUG-ST.pdf) were verified to be byte-for-byte identical (258 pages, SHA-256 af7aa7f55d00df55e5ad58ab867f526c961aa13ee9f398a8c195d1155fdf26c6). Every syllabus citation below comes verbatim from that document:

PDF Page	Syllabus Table / Section	Exact Verified Entry & Pedagogical Implication
p. 5	Table 1: Course Learning Outcomes (CO1, CO7)	Defines the two Course Outcomes mapped to **Vranitagara** (reproduced verbatim below).
p. 6	Table 2: Contents of Course — Paper 1, Topic 3	Lists **Topic 3: Nirjantukarana (Sterilization)** in **Term 1** (LH: 1, NLHT: 1, NLHP: 4; Topics 1–3 share a combined 15-mark blueprint weight). Subtopic 3.2 reads verbatim: **"2. Knowledge about Vranitagara."**
p. 32	Table 3: Learning Objectives — Topic 3 (Nirjantukarana)	Row 2 maps **CO1, CO7** to the learning objective **"Explain about Vranitagara"** (CC Cognitive/Comprehension, MK Must Know, K Know level; T-L methods: L&GD, L_VC, TUT, DIS, PER; Assessments: M-MOD, P-EXAM, PRN, CL-PR, P-PRF; Assessment Type: F&S Formative & Summative; Term I; Activity NLHT3.1).
p. 33	Table 3: Non Lecture Hour Theory (NLHT 3.1)	Defines NLHT 3.1 (**Vranitagara**) verbatim: **"Compile the information regarding Vranitagara and compare it with Ideal Surgical Ward."**
p. 230	Table 4: NLHT Activity Master List	Lists Activity No. 3.1, CO No. CO1, CO7, Activity details: **"Vranitagara"** (referring back to Table 3).
pp. 241, 243	Table 6 D & 6 F: Assessment & Theory Blueprint	Places Topics 1–3 in **Periodical Assessment 1 (PA 1)** (p. 241). Paper 1 theory blueprint (p. 243) specifies for Topic 3 (**Nirjantukarana**): **MCQ: Yes, SAQ: Yes, LAQ: No** (share of 15 marks across Topics 1–3).

1.2 Official NCISM Course Outcomes Mapped to NLHT 3.1 (CO1 and CO7)

On PDF page 5 (Table 1: **Course learning outcomes and mapped PO**), NCISM defines the two Course Outcomes attached to NLHT 3.1 as follows [NCISM 2024, p. 5]:

> **Verbatim Official NCISM Course Outcome Descriptions (AYUG-ST, PDF p. 5)**
>
> - **CO1 (mapped to PO1, PO2): "Apply knowledge, critical thinking, and analytical skills for diagnosis and management of Shalya Tantra conditions with relevant contemporary science."**
> - **CO7 (mapped to PO3, PO7, PO9): "Demonstrate professionalism with high ethical standards, imbibing the leadership quality, and be committed to continuous improvement of skills and knowledge in the field of Shalya Tantra research."**

How NLHT 3.1 supports CO1 and CO7:

1. **Supporting CO1:** Compiling classical descriptions of the surgical patient's chamber and care regimen (**Vraṇitāgāra** / **Vraṇitopāsanīya**) and testing them against modern infection prevention, ward engineering, wound-care, nutrition, and psychosocial standards directly trains **critical thinking and analytical comparison with contemporary science**. Rather than memorizing verses in isolation or forcing false equivalences, students analyze **why** an ancient surgeon specified dust-free, calm, clean quarters alongside **why** modern wards rely on validated cleaning, bed spacing, ventilation, and standard precautions.
2. **Supporting CO7:** Studying **Suśruta Saṃhitā** Sūtrasthāna 19 fosters ethical responsibility toward vulnerable post-operative patients (privacy, gentle speech, continuous vigilance, non-harm) and research discipline—requiring BAMS learners to cite primary editions accurately, distinguish historical context from clinical evidence, and commit to evidence-informed improvement in surgical care (NLHP 3.1, NLHP 3.2, and later Topic 20 NLHT 20.2 on Surgical Site Infection [NCISM 2024, pp. 32–33, 98]).

1.3 Decoding NCISM Table 3 Codes for NLHT 3.1

Per the NCISM Abbreviations legend [NCISM 2024, pp. 257–258], the exact parameters governing your NLHT 3.1 session are:

- **Domain / Level / Priority:** CC (Cognitive / Comprehension) · K (Know) · MK (Must Know — mandatory core syllabus topic).

- **Teaching–Learning (T–L) Methods:** L&GD (Lecture & Group Discussion), L_VC (Lecture with Video clips), TUT (Tutorial), DIS (Discussions), PER (Presentations).
- **Assessment Methods & Type:** M-MOD (Making of Model, e.g., ward layout model), P-EXAM (Practical exam), PRN (Presentation), CL-PR (Class Presentation), P-PRF (Practical Performance); F&S (both Formative — PA 1/ workbook/presentation — and Summative — Term Test 1 & University Paper I MCQs/SAQs).

2 Proposed Study Learning Outcomes

> **Labeling Notice**
>
> The outcomes below are **proposed study-guide outcomes** written specifically for this monograph to operationalize the NCISM objective (**"Explain about Vranitagara"** / **"Compile the information regarding Vranitagara and compare it with Ideal Surgical Ward"**). They are **not** official NCISM wording unless explicitly quoted from AYUG-ST.

Upon completing these study notes and the accompanying NLHT 3.1 activity, a Third Professional BAMS student should be able to:

1. **Define and contextualize Vraṇitāgāra:** Accurately spell, pronounce, and define **Vraṇitāgāra** and trace its textual basis to **Suśruta Saṃhitā** Sūtrasthāna Chapter 19 (**Vraṇitopāsanīya Adhyāya**) and Chapter 5 (**Agropaharaṇīya**).
2. **Compile primary classical specifications:** Retrieve and explain the classical parameters for the wounded patient's chamber (**āgāra/gṛha**), bed (**śayana**), movement and sleep restrictions, nursing/attendant behavior, diet (**pathya/apathya**), psychological reassurance, and historical protective practices with accurate verse citations.
3. **Describe a modern Ideal Surgical Ward:** Summarize key architectural, infection-prevention, sterilization (CSSD), biomedical waste, clinical-monitoring, nutritional, and psychosocial standards using current MoHFW/NHSRC, WHO, and CDC guidelines.
4. **Perform an evidence-graded comparison:** Critically classify features of **Vraṇitāgāra** and the modern surgical ward into **(a) shared foundational principles**, **(b) historically or culturally specific practices**, and **(c) validated current protocols**, explicitly avoiding false equivalences (such as equating herbal fumigation with modern sterilization).
5. **Communicate and document professionally:** Present a structured, dual-cited (classical verse + current biomedical guideline) ward comparison in written worksheet and 3-minute oral/viva formats aligned with CO1 and CO7.

3 Spelling, Pronunciation, Definition, Scope, and Terminology

3.1 Spelling and Transliteration Note

- **Official NCISM Syllabus Spelling: Vranitagara** (without diacritics) [NCISM 2024, pp. 6, 32, 33, 230]. Students should avoid informal corruptions such as **"Vrunitagara"** in university answer scripts and clinical logs.
- **Standard IAST Transliteration: Vraṇitāgāra** (long **ā** after **t** and long **ā** after **g**; retroflex nasal **ṇ**).
- **Devanagari:** व्रणितागार (vraṇita + āgāra via **savarṇa-dīrgha sandhi**: a + ā → ā).
- **Pronunciation Guide for Students:** vrah-nee-TAH-gah-rah (short **a** in **vra**, retroflex **ṇ** with tongue curled slightly back, short **i**, stressed long **ā** in **tā**, stressed long **ā** in **gā**, short final **a**). For **Vraṇitopāsanīya**: vrah-nee-toh-pah-sah-NEE-yah.

3.2 Etymology, Definition, and Scope

- **Etymology (Nirukti / Vyutpatti):**
  - **Vraṇita** (व्रणित): A person afflicted with a **vraṇa** (wound, surgical incision, or ulcer; **Ḍalhaṇa** on Su.Sū. 19.1–2: **vraṇitasya sañjātavraṇasya** — "of one in whom a wound has arisen").
  - **Āgāra** (आगार): A house, dwelling, chamber, or dedicated room (synonymous in Su.Sū. 19 with **gṛha** in v.4/ v.35 and **veśman** in v.25).
  - **Vraṇitāgāra** (व्रणितागार): A specially selected, clean, draft-shielded, comfortable inpatient chamber or ward prepared for the post-operative care, protection, nursing, and convalescence of a wounded or operated patient.
- **Scope Boundaries in Shalya Tantra:**
  1. **Vraṇitāgāra vs. Śastrakarmāgāra (Operation Theatre):** In Su.Sū. 5.34, operative surgery and immediate post-operative fumigation/protection precede transfer: **"having performed protective measures, the patient should be brought into the āgāra (chamber/ward) and instructed in the post-operative**

regimen (ācārika)". Thus, **Vraṇitāgāra** corresponds conceptually to the **post-operative surgical ward / recovery chamber**, whereas operative asepsis and OT sterilization belong to NLHP 3.1 [NCISM 2024, p. 33].

2. **Vraṇitāgāra vs. Āturālaya (Caraka Sū. 15): Caraka Saṃhitā** (Ca.Sū. 15.6–7) describes the **Āturālaya** (general inpatient facility for **pañcakarma** and medical therapies), including water supply, kitchen, bath, latrine, and attendants. **Vraṇitāgāra** is **Suśruta's** focused surgical-patient adaptation, giving heightened emphasis to wound protection, immobility/off-loading, fly/vector exclusion, and dietary control against suppuration (**pūyavardhana**).
3. **Why placed under Topic 3 (Nirjantukarana)?** Because environmental cleanliness (**śuci**), dust/sun/draft control (**nivāta, ātapavarjita**), vector exclusion (**makṣikādi parihāra**), and historical fumigation (**dhūpana**) represent Ayurveda's pre-microbiological attempt to shield the open wound from exogenous contamination (**āgantu roga**) [NCISM 2024, p. 6; Su.Sū. 19.4, 20, 28].

3.3 Key Classical and Modern Terminology

Term (IAST / English)	Devanagari / Code	Concise Meaning & Relevance to NLHT 3.1
Vraṇitāgāra	व्रणितागार	Chamber/ward for the wounded or post-operative patient (Su.Sū. 19.3).
Vraṇitopāsanīya	व्रणितोपासनीय	Title of Su.Sū. 19; regimen of attending/nursing (**upāsanā** = **sevana**) a wounded patient (**Ḍalhaṇa** on 19.1–2).
Praśasta-vāstu	प्रशस्तवास्तु	Approved, auspicious, and structurally sound site/ground (Su.Sū. 19.3–4).
Nivāta & Ātapavarjita	निवात · आतपवर्जित	Shielded from direct drafts/high winds and excessive heat/glare (Su.Sū. 19.4).
Asambādha & Svāstīrṇa	असम्बाध · स्वास्तीर्ण	Spacious/uncongested and well-furnished with soft, clean bedding (Su.Sū. 19.5).
Āgantu Roga	आगन्तु रोग	Exogenous diseases/injuries arising from external agents (Su.Sū. 19.4).
Pūyavardhana	पूयवर्धन	Pus-promoting / suppuration-aggravating dietary or behavioral factors (Su.Sū. 19.17).
Dhūpana	धूपन	Herbal/ghee/salt fumigation historically used in the wound room (Su.Sū. 19.28; 5.18).
Rakṣākarma	रक्षाकर्म	Historical apotropaic/protective rites, mantras, and auspicious objects (Su.Sū. 19.23–29).
Nirjantukaraṇa	निर्जन्तुकरण	NCISM Topic 3 term for sterilization/asepsis/disinfection [NCISM 2024, p. 6].
Standard Precautions	MoHFW / CDC	Baseline IPC applied to **all** patients regardless of diagnosis: hand hygiene, risk-based PPE, sharps safety, respiratory hygiene, clean environment [MoHFW-IPC 2020, p. 33].
SSI (Surgical Site Infection)	WHO / CDC / NHSRC	Infection occurring within 30 days (or 90 days for specified implants) at surgical incision or deep/organ space [MoHFW-IPC 2020, pp. 138–139].
CSSD & Spaulding Scheme	MoHFW / CDC	Central Sterile Supply Department reprocessing instruments by infection risk: critical (sterilization), semi-critical (HLD/sterilization), non-critical (cleaning/LLD) [MoHFW-IPC 2020, pp. 195–198].

4 Classical Textual Foundation and Evidence-Quality Hierarchy

4.1 How "Vranitagara" Relates to Suśruta Saṃhitā Sūtrasthāna Chapter 19

Students often look for the single Sanskrit compound **vraṇitāgāra** in **Suśruta Saṃhitā** and wonder why it does not appear verbatim as one word in Chapter 19. The answer is straightforward and important for viva examinations:

- In **Suśruta Saṃhitā**, Sūtrasthāna Chapter 19 is titled **Vraṇitopāsanīya Adhyāya** ("Chapter on the Care and Attendance of the Wounded Patient").
- Verse 3 opens the clinical instruction: **vraṇitasya prathamamevāgāramanvicchet — "First of all, a house/chamber (**āgāra**) should be arranged for the wounded person (**vraṇita**)"** [Su.Sū. 19.3]. Subsequent verses refer to this space as **gṛha** (v.4, v.35) and **veśman** (v.25).
- In Chapter 5 (**Agropaharaṇīya**), verse 34 links operative surgery directly to this chamber: **tataḥ kṛtarakṣamāturamāgāraṃ praveśya, ācārikamādiśet** — and **Ḍalhaṇa** clarifies that **ācārikam** refers specifically to the diet and conduct rules laid down in **Vraṇitopāsanīya** (Ch. 19) [Su.Sū. 5.34].

- Thus, the NCISM syllabus term **Vranitagara** (**vraṇita** + **āgāra**) is an established academic synthesis naming the ward/chamber system prescribed across Su.Sū. 19 (and cross-referenced in Su.Sū. 5.34 and Ca.Sū. 15.6–7).

4.2 Primary Editions and Textual Variants Used in These Notes

All Sanskrit **mūla** verses and **Ḍalhaṇa** (**Nibandhasaṅgraha**) commentary citations in Section 5 are verified against the **CCRAS–National Institute of Indian Medical Heritage (NIIMH) e-Saṃhitā** (digital edition based on the 1938 **Nirṇaya Sāgara** / Yādavjī Trikamjī Ācārya critical vulgate edition), cross-checked via the **e-Suśruta TEI edition** [NIIMH e-Suśruta; e-Suśruta Sū. 19] and **Kaviraj Kunjalal Bhishagratna's 1907 public-domain English translation** [Bhishagratna 1907, pp. 172–178].

Important Editorial Note on Verse Numbering: In the 1938 Yādavjī Trikamjī / NIIMH edition, Sūtrasthāna Chapter 19 comprises **37 numbered units**: prose lines (1–3, 7, 9, 11, 14, 16, 18, 20, 23, 25, 27, 29) interwoven with **anuṣṭubh** verses (4, 6, 8, 10, 12–13, 15, 17, 19, 21–22, 24, 26, 28, 30–37). Note two edition features explicitly documented by **Ḍalhaṇa** and the 1938 apparatus:

1. After verse 34, the half-verse **śaktūn vilepīṃ kulmāṣāñjalaṃ cāpi śṛtaṃ pibet** carries marker |35| before the full verse **divā na nidrāvaśago…** ||35||.
2. Verse 36 (**vraṇe śvayathurāyāsāt…**) is placed in parentheses in the 1938 edition because **Ḍalhaṇa** notes **"certain teachers read this verse between the two verses"**, whereas **Gayadāsa** and others omit it [e-Suśruta Sū. 19, v.35–37]. Other popular Hindi/English editions (e.g., Bhishagratna 1907) present the chapter in continuous numbered paragraphs/couplets without these internal markers [Bhishagratna 1907].

4.3 Source-Quality Hierarchy and Four-Register Analytical Framework

When preparing assignments or answering clinical comparison questions under CO1, students should rank evidence using the following hierarchy:

Tier	Source Class	Examples Used in These Notes	Evidentiary Role
1	Primary Classical Source / Critical Edition & Statutory Syllabus	**Suśruta Saṃhitā** (Su.Sū. 19, 5) & **Caraka Saṃhitā** (Ca.Sū. 15) via CCRAS-NIIMH; NCISM AYUG-ST Syllabus	Authoritative baseline for classical Ayurvedic statements and curriculum scope.
2	Official Current Clinical & National Health Guidelines	MoHFW/NCDC IPC (2020), NHSRC Kayakalp (2024), NQAS (2020), NHSRC HAI (2025), WHO SSI (2018), WHO Core Components (2016), CDC IPC Guidelines	Authoritative baseline for modern ideal surgical-ward practice and legal/IPC compliance.
3	Peer-Reviewed Systematic Reviews & Meta-Analyses	Willner et al. (**BJS Open**, 2023) on early mobilization; Rojas Marcos et al. (**HSS J**, 2024) on psychosocial pain interventions	Tests specific modern clinical claims (e.g., mobilization, psychosocial support) where guidelines note nuance.
4	Classical Commentaries & Historical Translations	**Ḍalhaṇa** (**Nibandhasaṅgraha**), **Cakrapāṇidatta**, **Hārāṇacandra**; Bhishagratna (1907)	Clarifies archaic Sanskrit terms, lexical variants, and traditional interpretation—not modern biomedical proof.

Every comparison in Sections 6–9 maintains strict separation among **Classical Textual Statement**, **Traditional Interpretation**, **Current Clinical Evidence/Guidance**, and **Teaching Comparison/Limitation**. Where biomedical evidence is absent, mixed (e.g., isolated early mobilization protocols), or non-comparable (e.g., apotropaic rituals), that limitation is stated explicitly.

5 Verified Classical Sources: Suśruta Saṃhitā & Cross-References

All verses of **Suśruta Saṃhitā**, Sūtrasthāna, Chapter 19 (**Vraṇitopāsanīyādhyāyaḥ**) are presented below in Devanagari and IAST, checked directly against the CCRAS–NIIMH e-Saṃhitā / e-Suśruta TEI edition (1938 Yādavjī Trikamjī Ācārya edition with **Ḍalhaṇa**'s **Nibandhasaṅgraha** commentary and **pāṭhāntarāḥ**) `[NIIMH e-Suśruta; e-Suśruta Sū. 19]`. Translations are original, concise student-ready renderings cross-checked against **Ḍalhaṇa** and Bhishagratna (1907) `[Bhishagratna 1907]`.

5.1 Chapter Opening & Chamber Selection (Su.Sū. 19.1–4)

Suśruta Saṃhitā, Sūtrasthāna 19.1–2 — Opening Formula

अथातो व्रणितोपासनीयमध्यायं व्याख्यास्यामः ॥१॥ यथोवाच भगवान् धन्वन्तरिः ॥२॥

athāto vraṇitopāsanīyamadhyāyaṃ vyākhyāsyāmaḥ ||1|| yathovāca bhagavān dhanvantariḥ ||2||

Student Translation / Paraphrase: Now we shall expound the chapter entitled Vraṇitopāsanīya (the care and attendance of a wounded person), as declared by Lord Dhanvantari.

Key Terms & Relevance to Vraṇitāgāra: Ḍalhaṇa defines vraṇita as one in whom a wound has arisen (sañjātavraṇa), and upāsanā as attentive care/service (sevana) encompassing the chamber, bed, seating, and regimen (gṛhaśayyāsanādikam). Cakrapāṇi notes this chapter logically follows Ch. 18 (bandaging) to guide post-dressing diet and conduct.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.1–2 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

Suśruta Saṃhitā, Sūtrasthāna 19.3–4 — Site & Microclimate

व्रणितस्य प्रथममेवागारमन्विच्छेत्; तच्चागारं प्रशस्तवास्त्वादिकं कार्यम् ॥३॥
प्रशस्तवास्तुनि गृहे शुचावातपवर्जिते । निवाते न च रोगाः स्युः शारीरागन्तुमानसाः ॥४॥

vraṇitasya prathamamevāgāramanvicchet; taccāgāraṃ praśastavāstvādikaṃ kāryam ||3||
praśastavāstuni gṛhe śucāvātapavarjite | nivāte na ca rogāḥ syuḥ śārīrāgantumānasāḥ ||4||

Student Translation / Paraphrase: For a wounded person, first of all a chamber (āgāra) should be sought; and that chamber should be prepared on an approved site (praśasta-vāstu) with requisite qualities. In a house built on a commendable site—clean (śuci), free from excessive sun/heat (ātapavarjita), and shielded from strong drafts (nivāta)—neither bodily (śārīra), exogenous (āgantu), nor mental (mānasa) diseases arise.

Key Terms & Relevance to Vraṇitāgāra: This is the foundational Vraṇitāgāra passage. Key attributes: praśasta-vāstu (Ḍalhaṇa explains deśa/site free from vulnerable/inauspicious faults, sloping gently east or north with clean soil), śuci (clean, hygienic), ātapavarjita (protected from harsh sun/heat), and nivāta (free from violent gusts/dust-bearing winds). Notice Suśruta links ward environment directly to preventing somatic, exogenous (external/traumatic/infectious in later interpretation), and psychological complications.

Textual / Numbering Variants: Ḍalhaṇa notes some read 'vraṇinaḥ' instead of 'vraṇitasya' in v.3. A palm-leaf manuscript (tāḍapatrapustaka) reads 'praśastavāstusuniviṣṭaṃ śucyavātātapaṃ ca' in v.3.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.3–4 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.2 Bed, Space, Orientation, and Safety (Su.Sū. 19.5–6)

Suśruta Saṃhitā, Sūtrasthāna 19.5–6 Bed & Orientation

तस्मिञ् शयनमसम्बाधं स्वास्तीर्णं मनोज्ञं प्राक्शिरस्कं सशस्त्रं कुर्वीत ॥५॥
सुखचेष्टाप्रचारः स्यात् स्वास्तीर्णे शयने व्रणी । प्राच्यां दिशि स्थिता देवास्तत्पूजार्थं च तच्छिरः ॥६॥

tasmiñ śayanamasambādhaṃ svāstīrṇaṃ manojñaṃ prākśiraskaṃ saśastraṃ kurvīta ||5||
sukhaceṣṭāpracāraḥ syāt svāstīrṇe śayane vraṇī | prācyāṃ diśi sthitā devāstatpūjārthaṃ ca tacchiraḥ ||6||

Student Translation / Paraphrase: In that chamber, arrange a bed (śayana) that is uncongested/spacious (asambādha), well-spread with clean covers (svāstīrṇa), pleasing to the mind (manojña), with its head facing east (prākśiraska), and equipped with protective weapons/instruments (saśastra). On a well-spread bed, the wounded patient can turn and move limbs comfortably; as the deities reside in the east, the head of the bed is oriented eastward for their reverence.

Key Terms & Relevance to Vraṇitāgāra: Five bed criteria: (1) asambādha (spacious, free from crowding—Hārāṇacandra adds: level, free from unevenness and bedbugs/vermin like matkuṇa!), (2) svāstīrṇa (soft mattress, bolsters, clean sheets per Ḍalhaṇa, enabling painless turning/repositioning—sukhaceṣṭāpracāra), (3) manojña (pleasant/calming), (4) prākśiraska (cultural-religious eastward orientation), (5) saśastra (Ḍalhaṇa: keeping weapons nearby to ward off violent intruders/beasts in ancient settings—historically specific security).

Textual / Numbering Variants: Ḍalhaṇa notes 'asaṅkīrṇa' as a variant gloss for 'asambādha'.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.5–6 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.3 Attendants, Supportive Conversation, and Daytime Sleep (Su.Sū. 19.7–10)

Suśruta Saṃhitā, Sūtrasthāna 19.7–8 Attendants & Support

तस्मिन् सुहृद्भिरनुकूलैः प्रियंवदैरुपास्यमानो यथेष्टमासीत ॥७॥
सुहृदो विक्षिपन्त्याशु कथाभिर्व्रणवेदनाः । आश्वासयन्तो बहुशः स्वनुकूलाः प्रियंवदाः ॥८॥

tasmin suhṛdbhiranukūlaiḥ priyaṃvadairupāsyamāno yatheṣṭamāsīta ||7||
suhṛdo vikṣipantyāśu kathābhirvraṇavedanāḥ | āśvāsayanto bahuśaḥ svanukūlāḥ priyaṃvadāḥ ||8||

Student Translation / Paraphrase: Resting comfortably there, the patient should be attended by affectionate friends/companions (suhṛdbhiḥ) who are agreeable (anukūla) and gentle-spoken (priyaṃvada). Such well-disposed, kind-spoken companions, reassuring the patient repeatedly, quickly divert and relieve the pain of the wound through pleasant narratives (kathābhiḥ).

Key Terms & Relevance to Vraṇitāgāra: Early clinical recognition of attentional distraction and psychosocial pain modulation: suhṛdaḥ (sympathetic attendants), anukūla (aligned with patient's comfort), priyaṃvada (kind speech), āśvāsana (reassurance), and kathā (narratives of past heroes/pleasant stories per Ḍalhaṇa) reduce subjective pain perception (vraṇavedanā).

Textual / Numbering Variants: Variant in Ḍalhaṇa note 5: 'pūrvapuruṣavṛttāntaprabandharatāḥ' (devoted to narrating histories of noble elders).

Source: Suśruta Saṃhitā, Sūtrasthāna 19.7–8 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

Suśruta Saṃhitā, Sūtrasthāna 19.9–10 Daytime Sleep

न च दिवानिद्रावशगः स्यात् ॥९॥
दिवास्वप्नाद्व्रणे कण्डूर्गात्राणां गौरवं तथा । श्वयथुर्वेदना रागः स्रावश्चैव भृशं भवेत् ॥१०॥

na ca divānidrāvaśagaḥ syāt ||9||
divāsvapnādvraṇe kaṇḍūrgātrāṇāṃ gauravaṃ tathā | śvayathurvedanā rāgaḥ srāvaścaiva bhṛśaṃ bhavet ||10||

Student Translation / Paraphrase: One should not yield to daytime sleeping (divānidrā). From daytime sleep, itching in the wound (kaṇḍū), heaviness of the limbs (gātragaurava), swelling (śvayathu), pain (vedanā), redness (rāga), and profuse discharge (srāva) arise.

Key Terms & Relevance to Vraṇitāgāra: Ḍalhaṇa maps these adverse wound signs to tridoṣa aggravation: itching/heaviness (Kapha), swelling/pain (Vāta), redness (Pitta), discharge (Rakta). Clinically, daytime somnolence also promotes prolonged unmonitored pressure/immobility on the wound and circadian disruption.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.9–10 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.4 Wound Protection, Posture, and Rest Restrictions (Su.Sū. 19.11–13)

Suśruta Saṃhitā, Sūtrasthāna 19.11–13 Posture & Rest

उत्थानसंवेशनपरिवर्तनचङ्क्रमणोच्चैर्भाषणाद्यास्वात्मचेष्टास्वप्रमत्तो व्रणं संरक्षेत् ॥११॥
स्थानासनं चङ्क्रमणं दिवास्वप्नं तथैव च । व्रणितो न निषेवेत शक्तिमानपि मानवः ॥१२॥
उत्थानाद्यासनं स्थानं शय्या चातिनिषेविता । प्राप्नुयान्मारुतादङ्गरुजस्तस्माद्विवर्जयेत् ॥१३॥

utthānasaṃveśanaparivartanacaṅkramaṇoccairbhāṣaṇādyāsvātmaceṣṭāsvapramatto vraṇaṃ saṃrakṣet ||11||
sthānāsanaṃ caṅkramaṇaṃ divāsvapnaṃ tathaiva ca | vraṇito na niṣeveta śaktimānapi mānavaḥ ||12||
utthānādyāsanaṃ sthānaṃ śayyā cātiniṣevitā | prāpnuyānmārutādaṅgarujastasmādvivarjayet ||13||

Student Translation / Paraphrase: The patient must carefully protect the wound during all bodily actions—rising (utthāna), lying down (saṃveśana), turning sides (parivartana), walking (caṅkramaṇa), and loud speaking (uccairbhāṣaṇa). Even if physically strong (śaktimān api), a wounded person should avoid prolonged standing, sitting, walking, and daytime sleeping. Excess of rising, sitting, standing, or even lying in bed provokes vāta and causes body pain; therefore extremes should be avoided.

Key Terms & Relevance to Vraṇitāgāra: Crucial nuance in v.13: Suśruta does NOT prescribe rigid total immobility; he warns against excess (atiniṣevitā) of sitting, standing, OR even bed-lying (śayyā), while advising vigilant protection of the surgical/wound site against mechanical shear during early healing.

Textual / Numbering Variants: Ḍalhaṇa records an alternate reading for v.12: 'sthānāsanaṃ caṅkramaṇaṃ yānayānātibhāṣaṇam | vraṇavānna niṣeveta...' (replacing daytime sleep with vehicle travel and excessive talking).

Source: Suśruta Saṃhitā, Sūtrasthāna 19.11–13 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.5 Avoiding Sexual Arousal & Prohibited Dietary Regimen (Su.Sū. 19.14–19)

Suśruta Saṃhitā, Sūtrasthāna 19.14–15 Sexual Restraint

गम्यानां च स्त्रीणां सन्दर्शनसम्भाषणसंस्पर्शनानि दूरत एव परिहरेत् ॥१४॥
स्त्रीदर्शनादिभिः शुक्रं कदाचिच्चलितं स्रवेत् । ग्राम्यधर्मकृतान्दोषान् सोऽसंसर्गेऽप्यवाप्नुयात् ॥१५॥

gamyānāṃ ca strīṇāṃ sandarśanasambhāṣaṇasaṃsparśanāni dūrata eva pariharet ||14||
strīdarśanādibhiḥ śukraṃ kadāciccalitaṃ sravet | grāmyadharmakṛtāndoṣān so'saṃsarge'pyavāpnuyāt ||15||

Student Translation / Paraphrase: The wounded patient should avoid from afar the sight, intimate conversation, and physical contact of sexually approachable partners. Even without actual intercourse, arousal from sight and similar stimuli may dislodge and discharge śukra, producing the same adverse effects on recovery as sexual activity.

Key Terms & Relevance to Vraṇitāgāra: Reflects classical Ayurvedic physiology linking śukra conservation, ojas/vitality, and avoidance of pelvic/muscular exertion and autonomic surges during acute wound healing (see also the interpolated v.36 warning against maithuna).

Source: Suśruta Saṃhitā, Sūtrasthāna 19.14–15 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

Suśruta Saṃhitā, Sūtrasthāna 19.16–19 Prohibited Diet & Alcohol

नवधान्यमाषतिलकलायकुलत्थनिष्पावहरितकशाकाम्ललवणकटुकगुडपिष्टविकृतिवल्लूरशुष्कशाकाजाविकानूपौदक-
मांसवसाशीतोदककृशरापायसदधिदुग्धतक्रप्रभृतीनि परिहरेत् ॥१६॥
तक्रान्तो नवधान्यादिर्योऽयं वर्ग उदाहृतः । दोषसञ्जननो ह्येष विज्ञेयः पूयवर्धनः ॥१७॥
मद्यपश्च मैरेयारिष्टासवसीधुसुराविकारान् परिहरेत् ॥१८॥
मद्यमम्लं तथा रूक्षं तीक्ष्णमुष्णं च वीर्यतः । आशुकारि च तत् पीतं क्षिप्रं व्यापादयेद्व्रणम् ॥१९॥

navadhānyamāṣatilakalāyakulatthanişpāvaharitakaśākāmlalavaṇakaṭukaguḍapiṣṭavikṛtival-
lūraśuṣkaśākājāvikānūpaudaka-
māṃsavasāśītodakakṛśarāpāyasadadhidugdhatakraprabhṛtīni pariharet ||16||
takrānto navadhānyādiryo'yaṃ varga udāhṛtaḥ | doṣasañjanano hyeṣa vijñeyaḥ pūyavardhanaḥ ||17||
madyapaśca maireyāriṣṭāsavasīdhusurāvikārān pariharet ||18||
madyamamlaṃ tathā rūkṣaṃ tīkṣṇamuṣṇaṃ ca vīryataḥ | āśukāri ca tat pītaṃ kṣipraṃ vyāpādayedvraṇam ||19||

Student Translation / Paraphrase: The patient should avoid newly harvested grains (navadhānya), black gram (māṣa), sesame, pea/vetch (kalāya), horse gram, hyacinth bean, pungent greens (haritaka), sour/salty/pungent items, jaggery and flour confections, dried meat (vallūra), dried vegetables, meat and fat of goat, sheep, marshy and aquatic animals, cold water, kṛśarā, pāyasa, curd, milk, buttermilk (takra), and similar heavy items. This group ending with buttermilk excites doṣas (wound vitiation per Ḍalhaṇa) and increases suppuration (pūyavardhana). Even one accustomed to alcohol should avoid fermented liquors (maireya, ariṣṭa, āsava, sīdhu, surā); being sour, dry, sharp, hot in potency, and fast-acting, alcohol rapidly impairs the wound.

Key Terms & Relevance to Vraṇitāgāra: Key concept: pūyavardhana (suppuration-promoting) and madya-niṣedha (post-operative alcohol abstinence). Note that classical food lists are historical Ayurvedic dietetics—not rigid modern prescriptions excluding protein or dairy without clinical assessment (e.g., modern wards optimize protein and glycemic control).

Textual / Numbering Variants: Cakrapāṇi notes the reading 'ajāṅgalānūpaudakamāṃsa...' (non-jāṅgala meats). Cakrapāṇi also explains that takra/milk/curd are highlighted under tantrayukti as moisture/exudate-increasing (klidyate) in fresh wounds.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.16–19 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.6 Environmental, Behavioral, and Digestive Hazards (Su.Sū. 19.20–22)

Suśruta Saṃhitā, Sūtrasthāna 19.20–22 Environmental & Emotional Hazards

वातातपरजोधूमावश्यायातिसेवनातिभोजनानिष्टभोजनश्रवणदर्शनेर्ष्यामर्षभयशोकध्यानरात्रिजागरणविषमाशन-
शयनोपवासवाग्व्यायामस्थानचङ्क्रमणशीतवातविरुद्धाध्यशनाजीर्णमक्षिकाद्या बाधाः परिहरेत् ॥२०॥
व्रणिनः सम्प्रतप्तस्य कारणैरेवमादिभिः । क्षीणशोणितमांसस्य भुक्तं सम्यङ्न जीर्यति ॥२१॥
अजीर्णात् पवनादीनां विभ्रमो बलवान् भवेत् । ततः शोफरुजास्रावदाहपाकानवाप्नुयात् ॥२२॥

vātātaparajodhūmāvaśyāyātisevanātibhojanānişṭabhojanaśravaṇadarśanerşyāmarşabhayaśokadhyānarātrijā-
garaṇaviṣamāśana-
śayanopavāsavāgvyāyāmasthānacaṅkramaṇaśītavātaviruddhādhyaśanājīrṇamakṣikādyā bādhāḥ pariharet ||20||
vraṇinaḥ samprataptasya kāraṇairevamādibhiḥ | kṣīṇaśoṇitamāṃsasya bhuktaṃ samyaṅna jīryati ||21||
ajīrṇāt pavanādīnāṃ vibhramo balavān bhavet | tataḥ śopharujāsrāvadāhapākānavāpnuyāt ||22||

Student Translation / Paraphrase: Avoid excessive exposure to wind, sun, dust (rajas), smoke (dhūma), and dew/frost; overeating or unpleasant food, distressing sounds or sights; envy, anger, fear, grief, and brooding; night-waking, irregular meals or sleep, fasting, excessive talking or physical exertion, prolonged standing/walking, cold drafts, incompatible or premature eating, indigestion (ajīrṇa), and flies/insects (makṣikādyā bādhāḥ). When a wounded patient depleted of blood and tissue is distressed by such causes, food is not properly digested; indigestion provokes severe derangement of vāta etc., leading to swelling, pain, discharge, burning, and suppuration (pāka).

Key Terms & Relevance to Vraṇitāgāra: Crucial ward-environment synthesis: excludes dust, smoke, harsh glare, cold drafts, distressing sensory stimuli, and flies (makṣikā—vectors of wound myiasis/contamination) while connecting psychological stress and poor sleep/indigestion to impaired wound healing.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.20–22 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.7 Personal Cleanliness, Ward Decor, Protective Rites, and Fumigation (Su.Sū. 19.23–31)

Suśruta Saṃhitā, Sūtrasthāna 19.23–26 Hygiene, Decor & Reassurance

सदा नीचनखरोम्णा शुचिना शुक्लवाससा शान्तिमङ्गलदेवताब्राह्मणगुरुपरेण भवितव्यमिति । तत् कस्य हेतोः? हिंसाविहाराणि हि महावीर्याणि रक्षांसि पशुपतिकुबेरकुमारानुचराणि मांसशोणितप्रियत्वात् क्षतजनिमित्तं व्रणिनमुपसर्पन्ति, सत्कारार्थं जिघांसूनि वा कदाचित् ॥२३॥
भवति चात्र । तेषां सत्कारकामानां प्रयतेतान्तरात्मना । धूपबल्युपहारांश्च भक्ष्यांश्चैवोपहारयेत् ॥२४॥
ते तु सन्तर्पिता आत्मवन्तं न हिंस्युः । तस्मात् सततमतन्द्रितो जनपरिवृतो नित्यं दीपोदकशस्त्रस्रग्दामपुष्पलाजाद्यलङ्कृते वेश्मनि सम्पन्मङ्गलमनोऽनुकूलाः कथाः शृण्वन्नासीत ॥२५॥
सम्पदाद्यनुकूलाभिः कथाभिः प्रीतमानसः । आशावान् व्याधिमोक्षाय क्षिप्रं सुखमवाप्नुयात् ॥२६॥

sadā nīcanakharomṇā śucinā śuklavāsasā śāntimaṅgaladevatābrāhmaṇaguruparеṇa bhavitavyamiti | tat kasya hetoḥ? hiṃsāvihārāṇi hi mahāvīryāṇi rakṣāṃsi paśupatikuberakumārānucarāṇi māṃsaśoṇitapriyatvāt kṣatajanimittaṃ vraṇinamupasarpanti, satkārārthaṃ jighāṃsūni vā kadācit~||23||
bhavati cātra | teṣāṃ satkārakāmānāṃ prayatetāntarātmanā | dhūpabalyupahārāṃśca bhakṣyāṃścaivopahārayet~||24||
te tu santarpitā ātmavantaṃ na hiṃsyuḥ | tasmāt satatamatandrito janaparivṛto nityaṃ dīpodakaśastrasragdāmapuṣpalājādyalaṅkṛte veśmani sampanmaṅgalamano'nukūlāḥ kathāḥ śṛṇvannāsīta~||25||
sampadādyanukūlābhiḥ kathābhiḥ prītamānasaḥ | āśāvān vyādhimokṣāya kṣipraṃ sukhamavāpnuyāt~||26||

Student Translation / Paraphrase: The patient should always keep nails and hair trimmed short (nīcanakharomṇā), remain clean (śuci), wear clean white garments (śuklavāsasā), and remain devoted to peace, auspiciousness, deities, brāhmaṇas, and teachers. Why? Because violent spirits (rakṣāṃsi) fond of flesh and blood approach the wounded on account of blood, seeking offerings or sometimes to harm. Therefore, one should sincerely offer incense, worship-offerings, and food. Thus appeased, they do not harm the self-disciplined patient; hence, remaining vigilant and attended by companions in a chamber adorned with lamp (dīpa), water (udaka), protective weapon, garlands, flowers, and parched grain (lājā), listening to auspicious and uplifting stories, the patient—cheerful and hopeful of recovery (āśāvān vyādhimokṣāya)—quickly attains comfort.

Key Terms & Relevance to Vraṇitāgāra: Must be read on two distinct levels: (1) practical hygiene & psychology—trimmed nails/hair, clean white clothes (showing stains/soil immediately), clean water/lighting, vigilant company, and cultivating hopefulness (āśāvān); (2) historical demonological framework (rakṣāṃsi, bali, flower garlands) reflecting ancient belief systems—NOT modern IPC practice (note MoHFW Annex 6 explicitly bans flowers/bouquets in modern patient rooms!).

Textual / Numbering Variants: Palm-leaf variant in v.26: 'sampanmaṅgalyuktābhiḥ' for 'sampadādyanukūlābhiḥ'.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.23–26 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

Suśruta Saṃhitā, Sūtrasthāna 19.27–31 **Fumigation, Amulets & Fanning**

ऋग्यजुःसामाथर्ववेदाभिहितैरपरैश्चाशीर्विधानैरुपाध्याया भिषजश्च सन्ध्ययो रक्षां कुर्युः ॥२७॥
सर्षपारिष्टपत्राभ्यां सर्पिषा लवणेन च । द्विरह्नः कारयेद्धूपं दशरात्रमतन्द्रितः ॥२८॥
छत्रामतिच्छत्रां लाङ्गूलीं जटिलां ब्रह्मचारिणीं लक्ष्मीं गुहामतिगुहां वचामतिविषां शतवीर्यां सहस्रवीर्यां सिद्धार्थकांश्च शिरसा धारयेत् ॥२९॥
व्यज्येत बालव्यजनैर्व्रणं न च विघट्टयेत् । न तुदेन्न च कण्डूयेच्छयानः परिपालयेत् ॥३०॥
अनेन विधिना युक्तमादावेव निशाचराः । वनं केशरिणाऽऽक्रान्तं वर्जयन्ति मृगा इव ॥३१॥

ṛgyajuḥsāmātharvavedābhihitairaparaiścāśīrvidhānairupādhyāyā bhiṣajaśca sandhyayo rakṣāṃ kuryuḥ~||27||
sarṣapāriṣṭapatrābhyāṃ sarpiṣā lavaṇena ca | dvirahnaḥ kārayeddhūpaṃ daśarātramatandritaḥ~||28||
chatrāmaticchatrāṃ lāṅgū(ṅga)līṃ jaṭilāṃ brahmacāriṇīṃ lakṣmīṃ guhāmatiguhāṃ vacāmativiṣāṃ śatavīryāṃ sahasravīryāṃ siddhārthakāṃśca śirasā dhārayet~||29||
vyajyeta bālavyajanairvraṇaṃ na ca vighaṭṭayet | na tudenna ca kaṇḍūyecchayānaḥ paripālayet~||30||
anena vidhinā yuktamādāveva niśācarāḥ | vanaṃ keśariṇā"krāntaṃ varjayanti mṛgā iva~||31||

Student Translation / Paraphrase: At both twilights (sandhyayoḥ), priests and physicians should perform protective benedictions from the four Vedas (v.27). Diligently twice daily for ten days/nights (daśarātram), perform fumigation (dhūpa) with mustard seeds (sarṣapa), neem leaves (ariṣṭapatra), clarified butter (sarpi), and rock salt (lavaṇa) (v.28). Protective herbs (chatrā, aticchatrā, lāṅgūlī, jaṭilā, brahmacāriṇī, lakṣmī, guhā, atiguhā, vacā, ativiṣā, śatavīryā, sahasravīryā, siddhārthaka) should be worn on the head (v.29). Gently fan the patient with a hair-whisk/fly-whisk (bālavyajana); do not disturb/agitate (na vighaṭṭayet), poke (na tudet), or scratch (na kaṇḍūyet) the wound, and guard it while sleeping (v.30). Night-prowling entities flee one guarded by this regimen just as deer avoid a forest occupied by a lion (v.31).

Key Terms & Relevance to Vraṇitāgāra: v.28: Ḍalhaṇa explains dhūpana repels flies (makṣikā) and spirits; v.30 gives timeless wound-care rules (no trauma, probing, or scratching due to 'nail-poison'/nakhaviṣa danger per Ḍalhaṇa—matching hand-nail contamination risk). v.27 & v.29 are historical/ritual protective practices.

Textual / Numbering Variants: v.28 palm-leaf MS reads 'saptarātraṃ' (7 nights) instead of 'daśarātram' (10 nights). v.29 reads 'lāṅgū(ṅga)līṃ' indicating variant 'lāṅgalīṃ'. v.30: Ḍalhaṇa notes 'kecidamuṃ na paṭhanti' (some omit v.30). v.31: NIIMH prints sandhi marker 'keśariṇā"krāntaṃ' (= keśariṇākrāntam, देवनागरी केशरिणाऽऽक्रान्तम् / केशरिणाक्रान्तम्).

Source: Suśruta Saṃhitā, Sūtrasthāna 19.27–31 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.8 Recommended Diet & Concluding Prognostic Principles (Su.Sū. 19.32–37)

Suśruta Saṃhitā, Sūtrasthāna 19.32–37 Pathya Diet & Outcomes

जीर्णशाल्योदनं स्निग्धमल्पमुष्णं द्रवोत्तरम् । भुञ्जानो जाङ्गलैर्मांसैः शीघ्रं व्रणमपोहति ॥३२॥
तण्डुलीयकजीवन्तीसुनिषण्णकवास्तुकैः । बालमूलकवार्ताकपटोलैः कारवेल्लकैः ॥३३॥
सदाडिमैः सामलकैर्घृतभृष्टैः ससैन्धवैः । अन्यैरेवङ्गुणैर्वाऽपि मुद्गादीनां रसेन वा ॥३४॥
शक्तून् विलेपीं कुल्माषाञ्जलं चापि शृतं पिबेत् ।३५।
दिवा न निद्रावशगो निवातगृहगोचरः । व्रणी वैद्यवशे तिष्ठञ् शीघ्रं व्रणमपोहति ॥३५॥
(व्रणे श्वयथुरायासात् स च रागश्च जागरात् । तौ च रुक् च दिवास्वापात्ताश्च मृत्युश्च मैथुनात्) ॥३६॥
एवंवृत्तसमाचारो व्रणी सम्पद्यते सुखी । आयुश्च दीर्घमाप्नोति धन्वन्तरिवचो यथा ॥३७॥

jīrṇaśālyodanaṃ snigdhamalpamuṣṇaṃ dravottaram | bhuñjāno jāṅgalairmāṃsaiḥ śīghraṃ vraṇamapohati ||32||
taṇḍulīyakajīvantīsunişaṇṇakavāstukaiḥ | bālamūlakavārtākapaṭolaiḥ kāravellakaiḥ ||33||
sadāḍimaiḥ sāmalakairghṛtabhṛṣṭaiḥ sasaindhavaiḥ | anyairevaṅguṇairvā'pi mudgādīnāṃ rasena vā ||34||
śaktūn vilepīṃ kulmāṣāñjalaṃ cāpi śṛtaṃ pibet |35|
divā na nidrāvaśago nivātagṛhagocaraḥ | vraṇī vaidyavaśe tiṣṭhañ śīghraṃ vraṇamapohati ||35||
(vraṇe śvayathurāyāsāt sa ca rāgaśca jāgarāt | tau ca ruk ca divāsvāpāttāśca mṛtyuśca maithunāt) ||36||
evaṃvṛttasamācāro vraṇī sampadyate sukhī | āyuśca dīrghamāpnoti dhanvantarivaco yathā ||37||

Student Translation / Paraphrase: Eating aged śāli rice—unctuous, moderate in quantity, warm—with jāṅgala (lean wild/dry-land) meat, or greens (taṇḍulīyaka, jīvantī, sunişaṇṇaka, vāstuka), tender radish, brinjal, paṭola, bitter gourd, pomegranate, āmalakī sautéed in ghee with rock salt, or green-gram (mudga) soup; and taking parched-barley gruel (śaktu), thick rice-gruel (vilepī), boiled grains, and boiled/medicated water (śṛtaṃ jalam) —one heals the wound rapidly (vv.32–35a). Avoiding daytime sleep, remaining within the draft-free chamber (nivātagṛhagocara), and abiding under the physician's guidance (vaidyavaśe tiṣṭhan), the patient heals swiftly (v.35). [Parenthetical v.36: Exertion causes swelling; night-waking adds redness; day-sleep adds pain; sexual intercourse brings all these and even death.] Thus conducting oneself, the wounded patient becomes comfortable and attains long life, per Dhanvantari's word (v.37).

Key Terms & Relevance to Vraṇitāgāra: Key clinical parallels: boiled drinking water (śṛtaṃ jalam), easily digestible warm balanced meals with lean protein (jāṅgala māṃsa / mudga), vitamin-C-rich āmalakī/dāḍima, and physician-supervised ward adherence (vaidyavaśa).

Textual / Numbering Variants: 1) Gayadāsa & Cakrapāṇi interpret 'dravottaram' in v.32 as 'mostly solid/low-fluid' (dravād uttaraḥ = dravahīnaḥ) rather than 'predominantly liquid' because Su.Sū. 45 limits excess water in wounds. 2) Half-verse 'śaktūn... pibet' carries number |35| before full verse ||35|| in the 1938 edition. 3) Verse 36 is bracketed as an interpolation noted by Ḍalhaṇa and omitted by Gayadāsa.

Source: Suśruta Saṃhitā, Sūtrasthāna 19.32–37 (NIIMH 1938 ed.; e-Suśruta Sū. 19).

5.9 Directly Connected Classical Passages (Su.Sū. 5.18, 5.34 & Ca.Sū. 15.6–7)

These two short primary cross-references belong in **Vraṇitāgāra** notes because Su.Sū. 5 describes the immediate operative-to-ward handoff into the **āgāra**, while Ca.Sū. 15 gives Ayurveda's broader architectural template for an inpatient hospital (**āturālaya**):

Suśruta Saṃhitā, Sūtrasthāna 5.18 & 5.34 (Agropaharaṇīya) OT-to-Ward Handoff

ततो गुग्गुल्वगुरुसर्जरसवचागौरसर्षपचूर्णैर्लवणनिम्बपत्रविमिश्रैराज्ययुक्तैर्धूपयेत् । आज्यशेषेण चास्य प्राणान् समालभेत ॥१८॥ ...
ततः कृतरक्षमातुरमागारं प्रवेश्य, आचारिकमादिशेत् ॥३४॥

tato guggulvagurusarjarasavacāgaurasarṣapacūrṇairlavaṇanimbapatravimiśrairājyayuktairdhūpayet | ājyaśeṣeṇa cāsya prāṇān samālabheta ||18|| ...
tataḥ kṛtarakṣamāturamāgāraṃ praveśya, ācārikamādiśet ||34||

Student Translation / Paraphrase: Then fumigate [the wound and bed] with powdered guggulu, aguru, sarjarasa, vacā, white mustard, rock salt, and neem leaves mixed with ghee, and anoint the vital regions with the remaining ghee (v.18). ... Then, having performed protective measures, admit the patient into the āgāra (chamber/ward) and prescribe the post-operative regimen (ācārika) (v.34).

Key Terms & Relevance to Vraṇitāgāra: Ḍalhaṇa explains that v.18 fumigation extends to the bed (śayanādyapi) to remove foul odor and repel bluebottle flies (nīlamakṣikā) so maggots (krimi) do not infest the wound; and in v.34 āgāra = gṛha (the Vraṇitāgāra) and ācārika = the diet/conduct regimen detailed in Ch. 19 (Vraṇitopāsanīya).

Source: Suśruta Saṃhitā, Sūtrasthāna 5.18, 34 (NIIMH 1938 ed.; e-Suśruta Sū. 5).

Caraka Saṃhitā, Sūtrasthāna 15.6 (Upakalpanīya — Āturālaya) General Hospital Architecture

तद्यथा— दृढं निवातं प्रवातैकदेशं सुखप्रविचारमनुपत्यकं धूमातपजलरजसामनभिगमनीयमनिष्ठानां च शब्दस्पर्शरसरूपगन्धानां सोदपानोदूखलमुसलवर्चःस्थानस्नानभूमिमहानसं वास्तुविद्याकुशलः प्रशस्तं गृहमेव तावत् पूर्वमुपकल्पयेत् ॥६॥

tadyathā— dṛḍhaṃ nivātaṃ pravātaikadeśaṃ sukhapravicāramanupatyakaṃ dhūmātapajalarajasāmanabhigamanīyamaniṣṭānāṃ ca śabdasparśarasarūpagandhānāṃ sodapānodūkhalamusalavarcaḥsthānasnānabhūmimahānasaṃ vāstuvidyākuśalaḥ praśastaṃ gṛhameva tāvat pūrvamupakalpayet ||6||

Student Translation / Paraphrase: Namely: an expert in building science (vāstuvidyākuśala) should first arrange an approved house that is sturdy (dṛḍha), draft-shielded yet ventilated on one side (nivātaṃ pravātaikadeśaṃ), spacious for easy movement (sukhapravicāra), away from high cliffs/structures (anupatyaka), impervious to smoke, harsh sun, dampness, and dust, free from unpleasant sounds, touch, tastes, sights, and odors, and equipped with water supply (udapāna), mortar-pestle, latrine (varcaḥsthāna), bathing area (snānabhūmi), and kitchen (mahānasa).

Key Terms & Relevance to Vraṇitāgāra: Crucial complementary passage: where Su.Sū. 19.4 emphasizes nivāta (draft protection), Caraka Sū. 15.6 explicitly pairs nivāta with pravātaikadeśa (controlled directional ventilation on one side) plus dedicated sanitation, bathing, water, and kitchen infrastructure—making Caraka's Āturālaya an illuminating internal Ayurvedic benchmark alongside Suśruta's surgical Vraṇitāgāra (and Ca.Sū. 15.7 specifies trained attendants and storytellers).

Source: Caraka Saṃhitā, Sūtrasthāna 15.6 (CCRAS/IPGT&RA Jamnagar Caraka Saṃhitā Online).

6 Structured Thematic Explanation of Vraṇitāgāra

Organizing the classical material from Su.Sū. 19 (and bridging notes in Su.Sū. 5 and Ca.Sū. 15) into eight clinical themes helps BAMS students move beyond rote verse memorization into analytical comparison under CO1.

> **Register Separation Key Used Below**
> - **Classical Text:** Direct content of **Suśruta** / **Caraka** verses.
> - **Commentary: Ḍalhaṇa**, **Cakrapāṇi**, or **Hārāṇacandra**'s traditional gloss.
> - **Pedagogical Guardrail:** What must **not** be conflated with modern biomedical proof or hospital protocol.

6.1 Site, Architectural Setting, and Microclimate (Su.Sū. 19.3–4, 20; Ca.Sū. 15.6)

- **Classical Text:** First locate an **āgāra** on a commendable site (**praśasta-vāstu**), clean (**śuci**), shielded from direct sun/heat (**ātapavarjita**), and free from drafts/wind blasts (**nivāta**), smoke (**dhūma**), dust (**rajas**), and dew/dampness (**avaśyāya**).
- **Commentary: Ḍalhaṇa** explains **praśasta-vāstu** as clean, well-drained ground (sloping gently east or north, fertile/firm soil, free of anatomical/structural defects), and **Ca.Sū. 15.6** adds **pravātaikadeśa** (controlled ventilation on one side), water supply, bathing room, latrine, and kitchen.
- **Clinical Rationale in Context:** Avoiding airborne dust, insects, moisture, and thermal stress aims to prevent **āgantu** (exogenous) as well as **śārīra** and **mānasa** complications (Su.Sū. 19.4).

6.2 Bed, Space, Comfort, and Orientation (Su.Sū. 19.5–6)

- **Classical Text:** The bed (**śayana**) must be uncongested (**asambādha**), well-spread (**svāstīrṇa**), pleasant (**manojña**), head-east (**prākśiraska**), and guarded with a weapon (**saśastra**).
- **Commentary: Hārāṇacandra** specifies the bed must be level and free of bedbugs/pests (**matkuṇa**); **Ḍalhaṇa** lists soft mattresses, bolsters, and clean linen enabling comfortable turning (**sukhaceṣṭāpracāra**, v.6).
- **Pedagogical Guardrail:** While spaciousness, clean bedding, and pest-free beds align directly with patient comfort and pressure-injury/infection prevention, **prākśiraska** (eastward head placement for deities) and **saśastra** (physical weapon at bedside) are culturally and historically specific practices—not modern clinical mandates.

6.3 Wound Protection, Mobility Limits, and Avoiding Daytime Sleep (Su.Sū. 19.9–13, 30)

- **Classical Text:** The patient must not scratch (**na kaṇḍūyet**), poke (**na tudet**), or disturb (**na vighaṭṭayet**) the wound, even during sleep (v.30), and must guard it while rising, lying, turning, walking, or speaking loudly (v.11). Prolonged standing, sitting, walking, or excessive lying in bed is discouraged (vv.12–13), and daytime sleep (**divāsvapna**) is prohibited because it induces itching, heaviness, swelling, pain, redness, and discharge (v.10).
- **Commentary: Ḍalhaṇa** explains **na kaṇḍūyet** as preventing **nakhaviṣa** (subungual/fingernail contamination and trauma) and links **divāsvapna** to **tridoṣa** + **rakta** vitiation in the wound.
- **Pedagogical Guardrail:** Protecting a fresh wound from mechanical shear and dirty fingernails remains clinically sound; however, prolonged bed restriction (**śayyā**) must be distinguished from modern **graded early mobilization** protocols that actively prevent DVT, pneumonia, and ileus [Willner 2023].

6.4 Attendants, Nursing, and Psychosocial / Narrative Care (Su.Sū. 19.7–8, 25–26, 35)

- **Classical Text:** The patient should be surrounded by sympathetic, agreeable, gentle-spoken friends/attendants (**suhṛdaḥ anukūlāḥ priyaṃvadāḥ**) who repeatedly reassure (**āśvāsayantaḥ**) and distract from wound pain with uplifting stories (**kathā**), keeping the patient cheerful (**prītamānasa**) and hopeful of cure (**āśāvān vyādhimokṣāya**, v.26) while obeying the physician (**vaidyavaśa**, v.35).
- **Commentary: Ḍalhaṇa** defines **kathā** as inspiring narratives of past exemplary figures; **Ca.Sū. 15.7** distinguishes dedicated clinical attendants (**paricāraka**—cooks, bathers, masseurs, lifters, medicine grinders) from conversational companions (**pārisadya**).

6.5 Diet, Hydration, and Digestive Protection (Su.Sū. 19.16–22, 32–35a)

- **Classical Text:** Heavy, fermenting, sour, pungent, salted, dried, marshy/aquatic meats, curd/milk/buttermilk, and newly harvested grains (v.16) are restricted as **pūyavardhana** (pus-promoting, v.17), along with all alcoholic preparations (vv.18–19). Light, warm, moderate meals—aged **śāli** rice, **jāṅgala** meat, leafy greens, **paṭola**, **āmalakī**, **dāḍima**, **mudga** soup, gruels, and boiled water (**śṛtaṃ jalam**)—are favored (vv.32–35a). Indigestion (**ajīrṇa**) from dietary or emotional errors triggers swelling, pain, discharge, burning, and suppuration (vv.21–22).

- **Pedagogical Guardrail:** Alcohol cessation and boiled potable water remain sound; however, classical prohibitions of milk, curd, or specific vegetables reflect humoral/digestive theory and **must not** be copied as blanket modern hospital restrictions that could cause postoperative protein-calorie undernutrition [WHO-SSI 2018, p. 17].

6.6 Personal Hygiene, Grooming, and Behavioral Restraint (Su.Sū. 19.14–15, 23)

- **Classical Text:** Nails and body hair kept short (**nīcanakharoman**), clean body (**śuci**), clean white clothing (**śuklavāsas**, v.23), and avoidance of distressing sights/sounds (v.20) or sexual arousal (vv.14–15).
- **Pedagogical Guardrail:** Short nails, personal cleanliness, and clean white/light linens (allowing prompt visual detection of exudate or blood) reflect enduring hygiene insight; abstinence from sexual arousal reflects classical **śukra** / **ojas** preservation and avoidance of mechanical strain.

6.7 Historical Protective Practices: Rakṣākarma, Dhūpana, and Amulets (Su.Sū. 19.23–29, 31; 5.18)

- **Classical Text:** Appeasing **rakṣāṃsi** with incense, **bali** offerings, lamps, water, garlands, flowers, and **lājā** (vv.23–25); Vedic blessings at dawn and dusk (v.27); twice-daily fumigation (**dhūpa**) for 10 days with mustard, neem leaf, ghee, and salt (v.28); wearing 13 protective herbs on the head (v.29); and gentle fanning with a **bālavyajana** (v.30).
- **Commentary: Ḍalhaṇa** explicitly adds a pragmatic function to **dhūpana**: repelling flies (**makṣikā**) and pests (Su.Sū. 19.28; 5.18).
- **Pedagogical Guardrail (Critical for Exam & Practice):**
  - **Do not** equate **dhūpana** with validated hospital sterilization or environmental disinfection (MoHFW-IPC 2020, pp. 69, 231). Smoke generates particulate matter and irritants; while herbal aromatics may briefly deter flies, they do not sterilize surgical surfaces or air.
  - **Do not** treat **bali**, floral garlands, Vedic chants, or head-worn herbs as modern clinical IPC requirements (floral bouquets are actively prohibited in modern wards [MoHFW-IPC 2020, p. 210]). Study them respectfully as historical attempts to safeguard vulnerable surgical patients and sustain morale in a pre-germ-theory era.

7 Modern Ideal Surgical-Ward Overview

In contemporary healthcare, an ideal post-operative surgical ward is governed by statutory Indian rules, Ministry of Health and Family Welfare (MoHFW) / National Health Systems Resource Centre (NHSRC) quality benchmarks, and international evidence-based infection prevention and control (IPC) guidelines. Unlike **Suśruta**'s holistic single-chamber model, a modern surgical unit operates as a **zoned, audited, multidisciplinary system** designed to prevent surgical site infections (SSIs)—which still affect roughly 11.8 per 100 surgical procedures in low- and middle-income countries (LMICs) [WHO-SSI 2018, p. 21; MoHFW-IPC 2020, p. 138]—while optimizing physiological recovery and patient dignity.

> **Governing Regulatory Principle**
>
> In India, surgical-ward design and daily practice must comply with the **Bio-Medical Waste Management Rules, 2016 (amended 2018/2019)**, the **MoHFW/NCDC National Guidelines for IPC in Healthcare Facilities (2020)**, **NHSRC NQAS & Kayakalp standards**, and the facility's **Hospital Infection Control Committee (HICC)** SOPs—not with historical Ayurvedic prescriptions where the two conflict [MoHFW-IPC 2020, pp. 16, 85–88; Kayakalp 2024, p. 71].

7.1 Patient Placement, Ward Layout, Access, Privacy, and Safety

- **Occupancy & Bed Spacing:** Standard occupancy is **strictly one patient per bed** [WHO-IPC 2016, pp. 16, 67; Kayakalp 2024, p. 71]. Open surgical wards require **1–2 metres** spacing between beds (with Kayakalp specifying at least **3.5 feet** in isolation wards) to curb contact and droplet cross-transmission [MoHFW-IPC 2020, pp. 52, 55; WHO-IPC 2016, p. 67; Kayakalp 2024, p. 71].
- **Traffic Zoning & Isolation:** General public and clinical/patient traffic must be segregated without criss-crossing [Kayakalp 2024, p. 73]. Patients with suspected or confirmed transmissible infections or multidrug-resistant organisms (MDROs) must not be mixed with clean post-operative patients and should be placed in single rooms (with private toilet and hand-washing sink) or cohorted under Transmission-Based Precautions [MoHFW-IPC 2020, pp. 52, 54–56; WHO-IPC 2016, p. 69; Kayakalp 2024, p. 71].
- **Ventilation, Lighting & Noise:** Natural cross-ventilation (unobstructed operable windows) or engineered HVAC systems maintain comfort and dilute airborne pathogens; critical protective/isolation rooms require ≥12 air changes per hour (ACH) and controlled pressure differentials [CDC-Env 2003/2024, Sec. C; Kayakalp 2024, p. 89]. Wards must maximize glare-free daylight (Kayakalp H1.4), enforce **Silent Zone** noise reduction and smoke-free policies (COTPA Act 2003, Kayakalp H2.6–H2.9), and provide at least 1 toilet per 20 IPD beds and 1 bathing facility per 40 patients [Kayakalp 2024, pp. 77, 87–89].
- **Privacy, Dignity & Physical Safety:** Under NQAS **Area of Concern B (Patient Rights)**, wards must maintain visual privacy (bedside screens/curtains during wound exposure/examination), confidentiality, and culturally sensitive care [NHSRC-NQAS 2020, pp. 30, 34]. Security controls restrict unauthorized vendors and enforce clean attendant conduct [Kayakalp 2024, p. 76].

7.2 Environmental Cleaning, Disinfection, and Waste Management

- **Wet Cleaning—No Dry Sweeping:** Floors and horizontal surfaces must be wet-mopped (two- or three-bucket technique) or wet-vacuumed with HEPA-filtered equipment; **dry sweeping with brooms is prohibited** because it aerosolizes dust and fungal spores [MoHFW-IPC 2020, pp. 68–69, 206–207].
- **Clean Before Disinfecting:** Surfaces—especially **high-touch surfaces** (bed rails, doorknobs, light switches, dressing trolleys, bedside tables, toilet rails)—are washed with detergent first (removing blood/pus/organic matter that inactivates disinfectants) and then disinfected daily or more often [MoHFW-IPC 2020, pp. 68–69, 91, 196]. Blood/body-fluid spills require immediate PPE-protected cleanup using spill kits and high-level disinfectant (e.g., sodium hypochlorite) [MoHFW-IPC 2020, p. 69; Kayakalp 2024, p. 71].
- **No Routine Fogging or Formalin Fumigation:** MoHFW IPC guidelines explicitly state: **"Disinfectant fogging is not recommended for routine patient care areas"** and **"Fumigation and fogging have no role in the modern operation room. Fumigation with formalin is hazardous to persons and should not be done"** [MoHFW-IPC 2020, pp. 69, 231]. Routine environmental air/surface swabbing is also not recommended outside outbreak investigation [MoHFW-IPC 2020, p. 69; CDC-Env 2003/2024, C.II.8].
- **Linen & Biomedical Waste:** Maintain ≥5 linen sets per bed, change sheets daily or between patients, transport soiled and clean linen in **separate trolleys**, and strip beds gently without shaking [Kayakalp 2024, pp. 73–74; MoHFW-IPC 2020, p. 207]. Segregate infectious dressings/sharps at the point of generation in colour-coded non-chlorinated bags and puncture-proof sharps containers under **BMW Rules, 2016/2018** (no storage beyond 48 hours; zero open burning per Kayakalp H2.7) [MoHFW-IPC 2020, pp. 85–88; Kayakalp 2024, p. 89].

7.3 Hand Hygiene, Standard Precautions, and Risk-Based PPE

- **Hand Hygiene at Point of Care:** Alcohol-based handrub (ABHR) dispensers and soap-and-water sinks must be readily accessible at every patient zone/ward entrance to support the WHO "5 Moments" before and after patient or dressing contact [WHO-IPC 2016, pp. 17, 69; MoHFW-IPC 2020, pp. 34–37].
- **Standard + Transmission-Based Precautions:** Applied universally to all surgical patients (assuming all blood/body fluids/non-intact skin are potentially infectious), supplemented by Contact, Droplet, or Airborne isolation when indicated [MoHFW-IPC 2020, pp. 33, 54–56; CDC-Iso 2007/2024].
- **Exposure-Risk PPE & Sharps Safety:** Gloves (sterile for aseptic wound care/dressing; clean non-sterile for body-fluid contact), surgical masks/eye protection for splash risk, fluid-resistant gowns/aprons when contamination is anticipated, and N95 respirators for airborne pathogens [MoHFW-IPC 2020, pp. 38–44]. Needles are never recapped by hand (single-hand scoop only) and are discarded immediately in sharps boxes; Hepatitis B vaccination and 2–72 hour HIV PEP pathways protect ward staff [MoHFW-IPC 2020, pp. 47, 191–193].

7.4 Instrument Reprocessing & Sterilization (CSSD)

- Reusable surgical ward instruments (dressing forceps, scissors, probes, kidney trays) are segregated at point of use, cleaned with enzymatic detergent (wearing heavy-duty utility gloves), and reprocessed in a **Central Sterile Supply Department (CSSD)** according to **Spaulding risk categories**: **critical items** entering sterile tissue/vascular beds require **steam autoclaving** (preferred); **semi-critical items** contacting mucous membranes require sterilization or high-level disinfection (HLD); **non-critical items** contacting intact skin (BP cuffs, stethoscopes, dressing trolleys) undergo detergent cleaning and low-level disinfection (e.g., 70% alcohol) [MoHFW-IPC 2020, pp. 47–48, 133, 195–198; WHO-IPC 2016, p. 69].

7.5 Wound-Care Environment & SSI Prevention

- **Perioperative Continuum:** Modern SSI prevention spans preoperative bathing (plain or antimicrobial soap), hair clipping only if needed (no razors), alcohol-based CHG skin prep, timed preoperative surgical antibiotic prophylaxis (SAP within 120 min before incision) **without** routine postoperative SAP prolongation, intraoperative normothermia, and perioperative blood-glucose control for both diabetic and non-diabetic adults [WHO-SSI 2018, pp. 15–20; CDC-SSI 2017/2024].
- **Ward Dressing Practice:** Standard sterile dressings protect primarily closed incisions (WHO conditionally advises against routine costly "advanced dressings" over standard sterile dressings for primary closure [WHO-SSI 2018, p. 20]). Ward dressing trolleys are cleaned daily and wiped with 70% alcohol or >100 ppm hypochlorite after every use [MoHFW-IPC 2020, p. 197]; sterile packs are opened aseptically without touching bare hands or wet barriers [MoHFW-IPC 2020, p. 91].

7.6 Comfort, Graded Mobility, Nutrition, Communication & Psychosocial Care

- **Graded Early Mobilization:** Prolonged post-operative bed rest is now considered obsolete for most uncomplicated operations; Enhanced Recovery After Surgery (ERAS) pathways initiate early mobilization (POD 0–1) to prevent thromboembolism, pulmonary atelectasis, and ileus. However, a systematic review and meta-analysis of 15 studies (3,538 GI-surgery patients) found that while isolated early mobilization shortened GI recovery by 11.5 hours (**P** = 0.03), it did not independently cut overall morbidity or hospital stay—highlighting that **individualized, wound-safe mobilization** within multimodal care is essential [Willner 2023].
- **Nutrition & Safe Water:** WHO suggests oral/enteral nutrient-enhanced formulas for underweight major-surgery patients [WHO-SSI 2018, p. 17]. Ward diets follow food-safety temperature controls (cooked food >60 °C, cold below 5 °C), covered trolleys, smoke-free/fly-proof kitchens, medically screened food handlers, and potable chlorinated water (0.2 ppm free chlorine, 200–250 L/bed/day) [MoHFW-IPC 2020, pp. 78–79; Kayakalp 2024, pp. 74–75].
- **Communication, Visitors & Psychosocial Support:** NQAS B1–B4 mandates transparent communication, informed consent, and counseling [NHSRC-NQAS 2020, pp. 30, 34]. MoHFW visitor policy (Annex 6) limits visitors to those needed for emotional well-being (1 attendant in the ward, no children under 12 years in isolation, mandatory handrub, no sitting on beds, no flowers/bouquets, symptomatic visitors excluded) [MoHFW-IPC 2020, p. 210]. A systematic review of 15 surgical trials (1,609 patients) found psychosocial interventions (CBT, preoperative education, relaxation) reduced postoperative pain in 9 of 15 studies and lowered pain catastrophizing, though protocol heterogeneity remains [Rojas Marcos 2024].

7.7 Documentation, Observation, Escalation, and Continuity of Care

- **Clinical Records & Surveillance:** Under NQAS Standards E3–E9, every patient has a designated doctor/nurse (E3.3), two-identifier verification before procedures (E4.1), updated vital-sign and treatment charts (E4.2), structured shift handovers (E4.3), priority high-risk triage (E5.2), Bed Head Ticket (BHT) progress notes (E8.1), and structured discharge summaries with follow-up counseling (E9.1–E9.3) [NHSRC-NQAS 2020, pp. 96–99].

- **Active SSI Surveillance:** Infection Control Nurses (ICNs) track 30-day (or 90-day implant) SSI rates stratified by wound class, feeding audit data back to surgical teams through HICC and national HAI networks [MoHFW-IPC 2020, pp. 134–140; NHSRC-HAI 2025, pp. 7, 19–21; WHO-IPC 2016, pp. 13–15].

Conceptual Comparison: Spatial & Functional Model — Vraṇitāgāra vs. Ideal Surgical Ward

Classical Vraṇitāgāra (Su.Sū. 19)

- **Site: Praśasta-vāstu**, clean ground (19.3–4)
- **Envelope: Nivāta** (draft-free), **ātapavarjita** (no harsh sun/heat), dust/smoke-free (19.4, 20)
- **Bed Zone:** Spacious (**asambādha**), clean linen (**svāstīrṇa**), head East (**prākśiraska**), bedside guard (**saśastra**) (19.5–6)
- **Care Team:** Physician (**vaidyavaśa**) + kind companions (**suhṛdaḥ**) + priests (**upādhyāya**) (19.7, 27, 35)
- **Protection: Dhūpana** smoke (10 days), herbal amulets, **bali**, **bālavyajana** fan, no scratching (19.24–30)
- **Regimen:** Light warm **pathya** diet, boiled water, rest, no day-sleep (19.10–22, 32–35)

⇄

Modern Ideal Surgical Ward (MoHFW / WHO / CDC)

- **Zoning:** Clean/dirty traffic split, isolation rooms, OT separation (Kayakalp D7, D10; NQAS C1)
- **Air & Light:** Cross-ventilation / HVAC (≥12 ACH in isolation), glare-free daylight, Silent Zone (CDC-Env; Kayakalp H1–H2)
- **Bed Zone:** 1 patient/bed, 1–2 m spacing, privacy screens, washable mattress, 5 linen sets/bed (MoHFW; Kayakalp E1)
- **Care Team:** Surgeon + ward nurse + HICC/ICN + screened attendant (Annex 6), no flowers (MoHFW)
- **IPC & CSSD:** Wet mopping (no brooms/fogging), 5-Moment ABHR, risk PPE, CSSD autoclaving, BMW colour bins (MoHFW)
- **Recovery:** ERAS graded mobility, optimal protein/glycemic control, BHT vitals & 30-day SSI surveillance (WHO-SSI; NQAS E)

8 Comprehensive Comparison: Vranitagara vs. Ideal Surgical Ward

Classical Passage / Concept	Meaning in Classical Context	Modern Point of Comparison	Current Evidence / Guideline	Teaching Interpretation or Limitation
1. Site & Ward Zoning Su.Sū. 19.3–4 (**praśasta-vāstu, śuci**); Ca.Sū. 15.6 (**dṛḍha, anupatyaka**)	Clean, well-drained, defect-free building set apart for the wounded patient (**āgāra**) with water, bath, latrine, and kitchen (Ca.Sū. 15.6).	Hospital zoning, segregated traffic, dedicated surgical IPD & isolation rooms, proximity to toilets/ utilities.	Segregate general vs. patient traffic (Kayakalp D10.5); separate infectious cases (D7.2); 1 toilet/20 beds (E6.1); single rooms with sink/ toilet (MoHFW-IPC 2020, p. 52).	**Shared goal:** separating vulnerable post-op patients from environmental filth. **Limitation:** classical **vāstu** soil/slope criteria are historical, not microbiological engineering standards.
2. Air, Ventilation & Microclimate Su.Sū. 19.4, 20, 35 (**nivāta, ātapavarjita, rajo-dhūma-avaśyāya-varjita**); Ca.Sū. 15.6 (**pravātaikadeśa**)	Shielded from harsh sun, cold gusts, dust, smoke, and damp dew; **Caraka** pairs draft protection with one-sided controlled airflow.	Controlled cross-ventilation or HVAC air-handling, filtration, dust/humidity control, daylight without glare.	Unobstructed cross-ventilation (Kayakalp H2.5); ≥12 ACH & HEPA in isolation/PE (CDC-Env C.III–IV); no dust/ dampness (MoHFW-IPC 2020, p. 68); daylight without heat/glare (Kayakalp H1.4).	**Shared principle:** dust, smoke, and dampness heighten respiratory/ wound risk. **Limitation:** pure **nivāta** (stagnant air) increases indoor droplet concentration—**Ca.Sū. 15.6**'s **pravātaikadeśa** aligns better with modern ACH dilution.
3. Bed, Spacing & Furnishings Su.Sū. 19.5–6 (**asambādha, svāstīrṇa, manojña**); **Hārāṇacandra** (pest-free)	Spacious, level, bug-free bed with clean soft sheets and bolsters enabling pain-free turning; calming room aesthetics.	1 patient/bed, 1–2 m bed spacing, impervious washable mattress covers, clean linen turnover, bedside privacy.	1 patient/bed, 1–2 m spacing (MoHFW-IPC 2020, p. 52; WHO-IPC 2016, p. 67); ≥5 linen sets/bed changed daily (Kayakalp E1.1–E1.3); privacy screens (NQAS B3).	**Strong convergence** on anti-crowding, vector-free bedding, and linen hygiene. **Limitation:** **prākśiraska** (eastward head) and **saśastra** (weapon) are cultural/ security practices, not clinical standards.
4. Cleaning & Fumigation vs. Disinfection Su.Sū. 19.4, 28; 5.18 (**śuci**; **dhūpana** with mustard, neem, ghee, salt)	Keep dwelling clean; burn herbal/ghee/salt smoke twice daily for 10 days to repel flies (**makṣikā**) and unseen **rakṣāṃsi**.	Routine wet mopping, detergent-first surface disinfection, spill kits, and explicit policy on fogging/fumigation.	Wet mop / 2–3 bucket method, **no dry brooms**, clean then disinfect high-touch surfaces; **no routine fogging or formalin fumigation** (MoHFW-IPC 2020, pp. 68–69, 231); fly-proof screens (Kayakalp E3.3).	**Critical distinction: dhūpana** aimed at odor/ fly deterrence, NOT validated sterilization. Smoke adds indoor particulates (Kayakalp H2.6–2.7 bans biomass smoke). Never substitute **dhūpana** for detergent + disinfectant.
5. Hand & Personal Cleanliness Su.Sū. 19.23, 30 (**nīcanakharoman, śuci, śuklavāsas, na kaṇḍūyet**)	Short nails and trimmed hair, daily cleanliness, clean white clothing, and strict ban on touching/ scratching wound (**nakhaviṣa**).	WHO 5 Moments hand hygiene, short unvarnished nails, clean ward attire/ scrubs, patient hand hygiene.	ABHR & sinks at point of care (WHO-IPC 2016, p. 17); short nails, no jewelry/artificial nails (MoHFW-IPC 2020, pp. 34, 89); clean patient gowns (Kayakalp E1.5).	**High conceptual continuity:** short nails and clean white textiles (revealing soil immediately) anticipate modern hand/textile hygiene, though modern care adds alcohol handrubs and sterile gloves.
6. PPE & Attire Su.Sū. 19.23 (**śuklavāsas**); **attendants/ physicians clean**	Clean white garments and bodily purity for patient and care environment; no dedicated fluid-barrier PPE described.	Exposure-risk PPE (gloves, masks, gowns/aprons, eye protection, N95, dedicated footwear).	Standard Precautions + risk-stratified PPE (MoHFW-IPC 2020, pp. 38–44); separate OT/critical-area footwear (Kayakalp D7.4); Hep-B/Td staff immunization (D8.4).	**Historical gap:** microbial/bloodborne transmission (HBV/HIV/ MDRO) was unknown classically; bidirectional barrier PPE and occupational vaccination are strictly modern requirements.
7. Instrument Reprocessing Su.Sū. 19 (no probing/trauma v.30; Su.Sū. 5 sharp/ blunt prep; NLHP 3.1)	Su.Sū. 19 regulates the ward environment rather than instrument sterilization; **Suśruta** elsewhere uses fire-heating/boiling/ washing.	CSSD decontamination, Spaulding classification, steam autoclaving, and validated sterilization monitoring.	Enzymatic cleaning + CSSD steam autoclaving for critical items, HLD for semi-critical, LLD for non-critical (MoHFW-IPC 2020, pp. 47, 195–198); single-use sharps disposal (p. 47).	**Scope distinction: Vraṇitāgāra** covers the ward environment, whereas modern instrument sterilization is centralized in CSSD with biological/chemical indicators.

Classical Passage / Concept	Meaning in Classical Context	Modern Point of Comparison	Current Evidence / Guideline	Teaching Interpretation or Limitation
8. Wound Protection & Dressing Care Su.Sū. 19.11, 20, 30 (**na vighaṭṭayet, na tudet, makṣikādi pariharet, bālavyajana**)	Protect wound from trauma, probing, scratching, flies, dust, and sweat; cool gently with **bālavyajana** whisk.	Aseptic dressing changes, sterile packs, dressing-trolley disinfection, BMW segregation, vector-proof screens.	Standard sterile dressings (WHO-SSI 2018, p. 20); trolley wiped with 70% alcohol/hypochlorite after each use (MoHFW-IPC 2020, p. 197); BMW colour-coded bins (pp. 85–88).	**Shared principle:** preventing mechanical disruption, scratching, and flies. **Limitation:** open waving with an unsterile hair whisk (**bālavyajana**) near an exposed wound can shed particles—modern wards use sterile closed dressings and climate control.
9. Mobility, Posture & Sleep Su.Sū. 19.9–13, 30, 36 (**na divāsvapna**; avoid excess standing/sitting/walking/lying)	Avoid daytime sleep and excessive standing, walking, sitting, or even over-lying; guard wound during turning/rising.	ERAS graded early mobilization (POD 0–1), DVT/atelectasis prevention, pressure-ulcer turning, sleep hygiene.	Prolonged bed rest is obsolete; ERAS early mobilization speeds GI recovery (−11.5 h, **P**=0.03) though isolated protocols show mixed morbidity effects (Willner 2023); pressure-relieving care (MoHFW-IPC 2020, p. 197).	**Nuanced comparison:** both warn against extremes (Su.Sū. 19.13 even warns against excess **śayyā**!), but modern surgery mobilizes patients much earlier using sutures, multimodal analgesia, and DVT prophylaxis.
10. Diet, Water & Metabolic Control Su.Sū. 19.16–22, 32–35a (**pathya/ apathya**, **śṛtaṃ jalam**, **madya-niṣedha**, **ajīrṇa** harm)	Avoid heavy/ fermenting/sour/cold foods (**pūyavardhana**) and all alcohol; give light warm aged rice, **jāṅgala** meat/greens, **mudga**, boiled water.	Perioperative nutritional optimization, safe food-handling temps, potable water, and intensive blood-glucose control.	Enteral/oral nutrient-enhanced support for underweight major-surgery patients (WHO-SSI 2018, p. 17); perioperative blood glucose control (p. 18); cooked food >60 °C, 0.2 ppm chlorinated water (MoHFW-IPC 2020, p. 78; Kayakalp E2.3).	**Shared principles:** boiled/safe water, alcohol avoidance, and tailoring meals to digestive tolerance. **Limitation:** classical bans on milk/curd/pulses should **not** cause protein-energy malnutrition in modern surgical wards.
11. Attendants, Visitors & Psychosocial Care Su.Sū. 19.7–8, 25–26 (**suhṛdaḥ priyaṃvadāḥ, kathā, āśvāsana, āśāvān**)	Supportive, kind companions divert pain with uplifting stories and sustain hopefulness (**āśāvān**); flowers/garlands decorate room.	Screened attendants/ visitor IPC rules, psychological/CBT pain support, preoperative education, Silent Zone.	Limit visitors, 1 trained attendant practicing handrub, exclude ill visitors, **ban flowers/ bouquets** (MoHFW-IPC 2020, p. 210); psychosocial interventions reduced post-op pain in 9/15 trials (Rojas Marcos 2024).	**Strong convergence** on emotional support reducing pain perception, balanced today by strict visitor IPC and banning live flowers (fungal/waterborne reservoirs).
12. Supervision, Records & Escalation Su.Sū. 19.22, 35 (**vaidyavaśe tiṣṭhan**, monitor **śopha-rujā-srāva-dāha-pāka**)	Patient stays under physician supervision; watch for swelling, pain, discharge, burning, and suppuration.	Designated nurse/ doctor, BHT vitals/ notes, shift handover, discharge summary, active 30/90-day SSI surveillance.	NQAS E3–E9 (patient ID, treatment chart, handover, BHT, discharge counseling NHSRC-NQAS 2020, pp. 96–99); active SSI surveillance (MoHFW-IPC 2020, pp. 138–140; NHSRC-HAI 2025, pp. 19–21).	**Evolution from observation to system:** clinical warning signs (**śopha, rujā, srāva, dāha, pāka**) parallel cardinal SSI signs (pain, redness, heat, swelling, pus), now formalized via standardized BHT records and HICC audits.

9 Critical Comparison: Similar Principle, Historically Specific Practice, and Current Protocol

To fulfill CO1 (**analytical skills with relevant contemporary science**) without falling into anachronism or forced equivalence, every element of **Vraṇitāgāra** should be sorted into three analytical buckets:

Domain	Similar Underlying Principle	Historically / Culturally Specific Practice (Not Modern Standard)	Validated Current Protocol (Mandatory Today)
Ward Environment & Air	Clean, spacious, dust-free, quiet, fly-free recovery space away from crowds and filth (Su.Sū. 19.4, 20).	**Vāstu** soil/slope rules (**prāṅnimna**); purely windless (**nivāta**) enclosure without mechanical ACH measurement.	Operable cross-ventilation (Kayakalp H2.5) or HVAC (≥12 ACH in isolation), wet mopping (no brooms), 1–2 m bed spacing (MoHFW-IPC 2020, pp. 52, 68).
Disinfection & Vector Control	Preventing fly landing (**makṣikā**) and foul odors from attracting wound pests (Su.Sū. 19.20, 28; 5.18).	Twice-daily burning of **sarṣapa-nimba-ghṛta-lavaṇa** smoke (**dhūpa**) for 10 days; **bali** offerings.	Detergent cleaning + hospital-grade disinfectant on high-touch surfaces; fly-proof screens; **no routine fogging or formalin fumigation** (MoHFW-IPC 2020, pp. 69, 231).
Bed, Safety & Room Objects	Clean, pest-free, comfortable bed; soft linen enabling painless turning (Su.Sū. 19.5–6).	Eastward head orientation (**prākśiraska**); bedside weapon (**saśastra**); floral garlands (**sragdāma-puṣpa**) and **lājā**.	1 patient/bed, washable mattress cover, ≥5 linen sets/bed, visual privacy curtains (NQAS B3), security desk (Kayakalp E4), **ban on flowers/bouquets** (MoHFW Annex 6).
Wound & Hand Hygiene	Short nails, bodily cleanliness, clean light-colored garments, strict ban on scratching/poking wound (Su.Sū. 19.23, 30).	Waving a hair fly-whisk (**bālavyajana**) over the patient/wound; wearing 13 protective herbs on the head (v.29).	WHO 5-Moment ABHR, sterile dressing packs & disinfected dressing trolleys, risk-based PPE, BMW colour-coded disposal, CSSD steam autoclaving (MoHFW-IPC 2020).
Mobility & Rest	Protecting the surgical site from mechanical shear while avoiding extremes of both exertion and prolonged lying (Su.Sū. 19.11–13).	Blanket prohibition of walking/standing/sitting even for strong patients (v.12) and strict taboo on daytime naps (v.10).	ERAS graded early mobilization (POD 0–1) individualized to surgical repair, alongside pain control, chest physio, and DVT prophylaxis (Willner 2023).
Diet & Hydration	Boiled/safe water (**śṛtaṃ jalam**), alcohol abstinence (v.18–19), easily digestible warm food, preventing metabolic/GI stress (v.21–22).	Blanket humoral prohibitions of milk, curd, buttermilk, sesame, and many pulses as **pūyavardhana** (v.16–17).	Adequate protein-calorie nutrition (enhanced enteral support if underweight), perioperative blood-glucose control (WHO-SSI 2018), 0.2 ppm chlorinated water, >60 °C cooked meals.
Psychosocial & Attendant Care	Gentle speech (**priyaṃvada**), reassurance (**āśvāsana**), uplifting distraction, and fostering hopefulness (Su.Sū. 19.7–8, 25–26).	Appeasing **rakṣāṃsi** via twilight Vedic benedictions (v.27) and sacrificial food offerings (v.24).	Informed consent (NQAS B4), preoperative counseling/CBT-informed pain support (Rojas Marcos 2024), restricted screened visitors practicing hand hygiene (MoHFW Annex 6).

Four Common Student Pitfalls to Avoid in Exams & Presentations

1. **False Equivalence on Dhūpana:** Never write **"Suśruta performed OT fumigation/sterilization with neem smoke."** Accurate framing: **Suśruta prescribed herbal-ghee dhūpana for odor control, insect deterrence, and protective belief, which is not equivalent to validated modern sterilization or chemical disinfection.**
2. **Uncritical Copying of Diet Bans:** Never advise modern post-operative patients to avoid milk or protein solely because Su.Sū. 19.16 lists **dugdha** or **māṣa**; explain the historical **pūyavardhana** rationale alongside modern evidence on protein-calorie nutrition and glycemic control [WHO-SSI 2018, pp. 17–18].
3. **Treating Rituals as Hospital Policy: Prākśiraska**, **saśastra**, **bali**, and head-worn **auṣadha** amulets belong to historical/cultural study—never present them as clinical IPC mandates.
4. **Overstating Suśruta as "Identical" to a Modern ICU/Ward:** Acknowledge what **Vraṇitāgāra** lacked (germ theory, microbiology, CSSD autoclaving, bidirectional PPE, antibiotics, active 30-day SSI surveillance, statutory BMW segregation) alongside what it remarkably anticipated (cleanliness, spacing, dust/fly exclusion, nail hygiene, boiled water, psychosocial pain relief).

10 Instructor-Ready 1-Hour NLHT 3.1 Session Plan

This 60-minute plan implements the NCISM NLHT 3.1 mandate (**"Compile the information regarding Vranitagara and compare it with Ideal Surgical Ward"**) using syllabus-prescribed methods L&GD, TUT, DIS, and PER [NCISM 2024, pp. 32–33].

10.1 Session Logistics & Materials

- **Target Class:** III BAMS (Term I, Topic 3: **Nirjantukarana**); batch of 25–60 students divided into 4–8 small groups (5–8 students/group; two groups may share a theme in large batches).
- **Room & Materials:** Projector/whiteboard, printed copies of **Section 11 Student Worksheet** (1 per student), copies of verified Su.Sū. 19 verses (Section 5), and excerpts/QR links to MoHFW-IPC 2020, Kayakalp 2024, and WHO-SSI 2018.

10.2 Minute-by-Minute Facilitation Guide (60 Minutes)

Time	Phase & T–L Method	Instructor & Student Activity	Expected Output
00–08 min	**1. Framing & Terminology** (TUT)	Introduce NLHT 3.1 (CO1, CO7), clarify spelling (**Vranitagara / Vraṇitāgāra**), link Su.Sū. 19.3 & Su.Sū. 5.34, and state the 4-register rule (classical vs. commentary vs. current guideline vs. comparison).	Students record syllabus location (p. 32–33) and etymology.
08–20 min	**2. Guided Classical Reading** (L&GD)	Facilitate rapid close reading of anchor verses Su.Sū. 19.3–8, 10–13, 16–20, 23–30, 32–35. Highlight **Ḍalhaṇa**'s glosses (**praśasta-vāstu**, **nakhaviṣa**, **makṣikā** deterrence) and editorial note on v.36.	Annotated verse list on Student Worksheet.
20–38 min	**3. Small-Group Compilation & Comparison** (DIS)	Assign each group 1 thematic cluster (see Subsection 10.3). Students extract verses, match them to MoHFW/WHO/CDC standards, and classify every item as **Similar Principle**, **Historical Practice**, or **Current Protocol**.	Completed group matrix citing **both** verse no. & guideline.
38–52 min	**4. Group Presentations** (PER / CL-PR)	4 groups present (3 min presentation + 30 sec peer/faculty question each). Enforce mandatory dual citation: **"Per Su.Sū. 19.X … whereas MoHFW-IPC 2020 / WHO-SSI 2018 states …"**	4 concise oral syntheses; peer worksheet completion.
52–60 min	**5. Debrief & Exit Check** (TUT)	Correct any false equivalences (especially **dhūpana** vs. sterilization, **dugdha** ban vs. nutrition, **rakṣākarma**). Collect 2-minute written exit ticket (see Subsection 10.4).	Verified exit reflections for PA 1 portfolio.

10.3 Group Allocations and Student Roles

Group	Assigned Theme & Verses	Required Modern Sources	Mandatory Critical Question
Group A	**Physical Ward, Air & Bed** (Su.Sū. 19.3–6, 20; Ca.Sū. 15.6)	MoHFW-IPC 2020 (pp. 52, 59–68); Kayakalp 2024 (D7, D10, E1, H1–H2); CDC-Env	Why does **nivāta** need balancing with **pravātaikadeśa** and modern ACH?
Group B	**Cleanliness, Dhūpana & PPE/ CSSD** (Su.Sū. 19.23, 28, 30; 5.18)	MoHFW-IPC 2020 (pp. 33–48, 68–69, 195–198, 231); WHO-IPC 2016	Why is **dhūpana** NOT equivalent to modern ward disinfection or CSSD autoclaving?
Group C	**Mobility, Sleep, Diet & Wound Care** (Su.Sū. 19.9–22, 30, 32–35a)	WHO-SSI 2018 (pp. 17–20); Willner 2023 (ERAS mobilization); Kayakalp E2–E3	Where do Su.Sū. 19 diet/rest rules help vs. risk harming modern surgical recovery?
Group D	**Attendants, Rituals, Rights & Records** (Su.Sū. 19.7–8, 23–27, 29, 35)	MoHFW-IPC 2020 (Annex 6, pp. 138–140); NHSRC-NQAS 2020 (B1–B4, E3–E9); Rojas Marcos 2024	How do we preserve **priyaṃvada/āśvāsana** while enforcing visitor IPC & banning flowers?

Suggested Student Roles Within Each Group: (1) **Text Verifier** (reads Sanskrit/IAST & **Ḍalhaṇa** note), (2) **Guideline Checker** (locates MoHFW/WHO/CDC rule), (3) **Critical Appraiser** (assigns **Similar Principle** / **Historical Practice** / **Current Protocol**), (4) **Recorder** (fills worksheet), (5) **Presenter** (delivers 3-minute synthesis).

10.4 Exit Reflection Prompt (Last 5 Minutes)

"Name one classical Vraṇitāgāra feature that aligns with modern surgical-ward principles, and one practice from Su.Sū. 19 that must remain strictly historical rather than replacing current hospital IPC protocol—citing both the verse number and the modern guideline."

11 Student Worksheet: Compiling & Comparing Vranitagara (NLHT 3.1)

Student Name: _____ **Roll No.:** _____ **Batch / Term:** III BAMS — Term I
Group: A / B / C / D **Date:** _____ **Faculty Signature:** _____

Instructions: Complete all rows for your assigned domain (and fill remaining domains during peer presentations). Every entry **must** cite the exact **Suśruta** / **Caraka** verse number and the exact modern guideline/page.

Domain	Classical Verse & Exact Specification	Modern Ideal Surgical Ward Standard (Cite Source)	Comparison: Convergence vs. Limitation	Classification (S / H / C)†
1. Site, Zoning & Air				
2. Bed, Spacing & Linen				
3. Cleaning & Disinfection				
4. Hand Hygiene, PPE & CSSD				
5. Wound Protection & Mobility				
6. Diet, Water & Metabolism				
7. Attendants, Psychosocial & Rituals				
8. Supervision, Records & Surveillance				

† **Classification Key:** S = Similar underlying principle; H = Historically/culturally specific practice (not current standard); C = Current validated clinical/statutory protocol.

Synthesis Box (Write 4–5 lines): Explain why NLHT 3.1 is mapped to CO1 and CO7, giving one concrete clinical lesson for your surgical-ward posting:

12 Assessment Support: Rubric & Formative Questions

Per NCISM Table 6 D & 6 F [NCISM 2024, pp. 241, 243], NLHT 3.1 is assessed formatively in PA 1 via presentations, workbook compilations, or models (PRN, CL-PR, M-MOD, P-PRF) and summatively via Paper I **MCQs** and **SAQs** (5 marks; LAQs are not assigned to Topic 3).

12.1 Analytic Marking Rubric for NLHT 3.1 (15-Mark Periodical Assessment Scale)

Criterion (Marks)	Exemplary (Full Marks)	Satisfactory (60–80%)	Needs Improvement (under 60%)
1. Classical Compilation & Accuracy (4 marks)	Cites exact verses (Su.Sū. 19.3–35, 5.34, Ca.Sū. 15.6) accurately with correct Sanskrit terms and **Ḍalhaṇa** context.	Covers major **Vraṇitāgāra** themes accurately but omits verse numbers or mixes up terms.	Vague recall without verse citations; misspells terms (**Vrunitagara**) or fabricates quotations.
2. Modern Surgical Ward Standards (4 marks)	Accurately integrates current MoHFW/Kayakalp/NQAS, WHO, and CDC rules (spacing, ABHR, CSSD, BMW, surveillance).	Mentions general hygiene/ sterilization accurately without naming concrete standards or guidelines.	Outdated/incorrect claims (e.g., recommending routine formalin fogging or skipping BMW rules).
3. Critical Appraisal & Register Separation (4 marks)	Clearly separates **Similar Principle / Historical Practice / Current Protocol**; avoids false equivalence on **dhūpana**, diet, rituals.	Attempts comparison with minor leaps or unexamined assumptions about ancient equivalence.	Equates **dhūpana** with autoclaving/sterilization or turns ritual/diet bans into modern clinical rules.
4. Presentation, Ethics & Communication (3 marks)	Clear, well-cited oral/visual output within 3 minutes; reflects CO7 patient-centered ethics and academic honesty.	Understandable presentation with minor pacing or citation gaps.	Disorganized, unreferenced, or ignores patient dignity/ regulatory boundaries.

12.2 Formative Practice Questions (NCISM Paper I Blueprint Aligned)

12.2.1 A. Multiple-Choice Questions (1 Mark Each — With Answer Key & Rationale)

1. **In the NCISM III BAMS AYUG-ST curriculum, Activity NLHT 3.1 (**Vranitagara**) is placed under which Topic and mapped to which Course Outcomes?**
   (a) Topic 1 (**History of Surgery**); CO1, CO3 (b) Topic 3 (**Nirjantukarana**); CO1, CO7
   (c) Topic 5 (**Trividha Karma**); CO2, CO4 (d) Topic 20 (**Vrana**); CO1, CO2, CO4
   Answer: (b). Verified on NCISM AYUG-ST PDF pp. 6, 32, 33, and 230.
2. **According to Suśruta Saṃhitā Sūtrasthāna 19.4, a clean, draft-shielded chamber on an approved site prevents which triad of diseases in the wounded patient?**
   (a) **Vātika, Paittika, Kaphaja** (b) **Sādhya, Yāpya, Asādhya**
   (c) **Śārīra, Āgantu, Mānasa** (d) **Nija, Karmaja, Sahaja**
   Answer: (c). Su.Sū. 19.4: **na ca rogāḥ syuḥ śārīrāgantumānasāḥ**.
3. **In Su.Sū. 19.28, twice-daily dhūpana (fumigation) for ten nights is prepared with which four ingredients?**
   (a) **Guggulu, Yaṣṭimadhu, Haridrā, Madhu** (b) **Sarṣapa, Ariṣṭapatra (Nimba), Sarpi (Ghṛta), Lavaṇa**
   (c) **Vatsanābha, Guḍa, Taṅkaṇa, Taila** (d) **Devadāru, Śuṇṭhī, Pippalī, Takra**
   Answer: (b). Su.Sū. 19.28: **sarṣapāriṣṭapatrābhyāṃ sarpiṣā lavaṇena ca**.
4. **Which statement accurately reflects the 2020 MoHFW National Guidelines for IPC regarding routine ward fogging and formalin fumigation?**
   (a) Weekly formalin fumigation is mandatory in all surgical wards.
   (b) Disinfectant fogging replaces daily wet mopping.
   (c) Routine disinfectant fogging is not recommended in patient-care areas, and formalin fumigation is hazardous and should not be done.
   (d) Herbal smoke (**dhūpana**) is an approved CSSD substitute for steam autoclaving.
   Answer: (c). Verified in MoHFW-IPC 2020, pp. 69 and 231.
5. **Under Kayakalp (2024) and WHO IPC Core Components (2016), what are the bed occupancy and open-ward spacing norms in an ideal surgical ward?**
   (a) Up to 2 patients per bed during peak load; 0.5 m spacing
   (b) 1 patient per bed; 1–2 m spacing between beds (3.5 ft in isolation)
   (c) 1 patient per bed; no minimum spacing needed if windows are closed
   (d) 1 patient per bed; routine bouquets permitted beside each bed

Answer: (b). Verified in MoHFW-IPC 2020 p. 52, WHO-IPC 2016 p. 67, and Kayakalp 2024 p. 71 (flowers banned per MoHFW Annex 6, p. 210).

12.2.2 B. Short-Answer Questions (5 Marks Each — NCISM Paper I Pattern)

1. **Explain Vraṇitāgāra according to Suśruta Saṃhitā Sūtrasthāna 19, detailing environmental, bed, and attendant specifications (cite key Sanskrit terms).** (5 marks)
   Key Scoring Points: Meaning & Su.Sū. 19.3 (1 mark); room traits—**praśasta-vāstu, śuci, ātapavarjita, nivāta** (1.5 marks); bed traits—**asambādha, svāstīrṇa, manojña, prākśiraska, saśastra** (1.5 marks); attendants & **kathā/āśvāsana** (19.7–8) (1 mark).
2. **Compare Vraṇitāgāra with an Ideal Surgical Ward under five heads: air/ventilation, bed spacing, surface disinfection vs. dhūpana, diet, and visitor/psychosocial care.** (5 marks)
   Key Scoring Points: 1 mark per domain with both classical concept (Su.Sū. 19) and modern standard (MoHFW-IPC 2020 / WHO-SSI 2018 / Kayakalp 2024), explicitly avoiding false equivalence on **dhūpana**.
3. **Why does Suśruta prohibit divāsvapna (daytime sleep) and pūyavardhana foods in a wounded patient, and how does contemporary surgical care approach postoperative rest and nutrition?** (5 marks)
   Key Scoring Points: Su.Sū. 19.10 symptoms & **Ḍalhaṇa**'s **doṣa** mapping (1.5 marks); Su.Sū. 19.16–17, 21–22 (**pūyavardhana**, **ajīrṇa**) (1.5 marks); modern ERAS graded mobilization (Willner 2023) + protein/nutritional support & glycemic control (WHO-SSI 2018) (2 marks).

12.2.3 C. Problem-Based Open-Book Scenario (For PA 1 / Tutorial Discussion)

Case Prompt: A 54-year-old male with poorly controlled type 2 diabetes undergoes emergency laparotomy and is transferred to an overcrowded 12-bed surgical ward where beds are 0.5 m apart, the floor is dry-swept with a broom each morning, attendants bring potted flowers, and a student proposes burning neem-mustard **dhūpana** inside the ward instead of detergent-disinfectant mopping.

- **Task:** Using Su.Sū. 19 and MoHFW-IPC 2020 / Kayakalp 2024 / WHO-SSI 2018, identify **four** IPC hazards in this scenario, cite **one** classical principle from **Vraṇitāgāra** that actually **supports** correcting overcrowding/dust, and explain why **dhūpana** cannot substitute for wet disinfection and glycemic/wound-care protocols.

13 Revision Summary, Glossary, and Viva / Oral-Exam Q&A

13.1 One-Page High-Yield Revision Summary

- **Syllabus Identity:** AYUG-ST Paper I · Term I · Topic 3 (**Nirjantukarana**) · NLHT 3.1 (**Vranitagara**) · CO1, CO7 · Must Know (MK) · MCQ & SAQ eligible (no LAQ).
- **Textual Core:** Su.Sū. 19 (**Vraṇitopāsanīya**) opens at v.3: **vraṇitasya prathamamevāgāramanvicchet**. Bridged from OT via Su.Sū. 5.34 (**āgāraṃ praveśya, ācārikamādiśet**). Complemented by Ca.Sū. 15.6–7 (**Āturālaya** with **pravātaikadeśa**, water, sanitation, kitchen, staff).
- **Five Bed Qualities (19.5): Asambādha** (spacious), **Svāstīrṇa** (clean/soft bedding), **Manojña** (pleasant), **Prākśiraska** (head East), **Saśastra** (protected).
- **Four Room Qualities (19.4): Praśasta-vāstu**, **Śuci**, **Ātapavarjita**, **Nivāta** → prevents **śārīra, āgantu, mānasa** ailments.
- **Key Prohibitions: Divāsvapna** (19.10 → itching, heaviness, swelling, pain, redness, discharge); scratching/poking (19.30 → **nakhaviṣa**); extremes of standing/sitting/walking/lying (19.12–13); **pūyavardhana** & **madya** (19.16–19); flies/dust/smoke/distress (19.20–22).
- **Historical Protective Measures: Rakṣākarma** (19.23–27, 29), **dhūpana** (sarṣapa + ariṣṭapatra + sarpi + lavaṇa, twice daily × 10 nights, 19.28).
- **Modern Ideal Surgical Ward Benchmarks:** 1 patient/bed, 1–2 m spacing; wet mopping (no brooms, **no** routine fogging/formalin fumigation); WHO 5-Moment ABHR; risk PPE; CSSD steam autoclaving; BMW colour-coded bins; ERAS graded mobilization + nutrition + glycemic control; screened attendant & no flowers; NQAS BHT + 30/90-day SSI surveillance.

13.2 Concise Bilingual Glossary

- **Ācārika** (आचारिक): Post-operative diet and conduct regimen (Su.Sū. 5.34).
- **Ajīrṇa** (अजीर्ण): Indigestion triggering **vāta-pitta-kapha** wound worsening (Su.Sū. 19.21–22).
- **Āśvāsana** (आश्वासन): Repeated verbal reassurance of the patient (Su.Sū. 19.8).
- **Bālavyajana** (बालव्यजन): Hair-whisk/fly-whisk used to gently fan the patient (Su.Sū. 19.30).
- **Makṣikā** (मक्षिका): Flies/insects repelled from wounds (Su.Sū. 19.20; 5.18).
- **Nakhaviṣa** (नखविष): **Ḍalhaṇa**'s term for contamination/trauma caused by scratching with fingernails (Su.Sū. 19.30).
- **Pāṭhāntara** (पाठान्तर): Textual variant reading across manuscripts/commentators.
- **Pūyavardhana** (पूयवर्धन): Pus/suppuration-aggravating (Su.Sū. 19.17).
- **Śṛtaṃ jalam** (श्रृतं जलम्): Boiled/medicated drinking water (Su.Sū. 19.35a).
- **CSSD / HICC / BMW**: Central Sterile Supply Department / Hospital Infection Control Committee / Bio-Medical Waste.

13.3 Likely Viva / Oral-Exam Questions & Model Answers

1. **Q: Where does the word Vranitagara appear in Suśruta Saṃhitā? Model Answer:** The exact single compound **vraṇitāgāra** is an academic synthesis; **Suśruta Saṃhitā** Sūtrasthāna 19.3 says **vraṇitasya prathamamevāgāramanvicchet** ("seek an **āgāra** for the **vraṇita**"), also calling it **gṛha** (19.4, 35) and **veśman** (19.25), while Su.Sū. 5.34 directs transferring the post-operative patient into the **āgāra**.
2. **Q: State the four qualities of the Vraṇitāgāra in Su.Sū. 19.4 and the three classes of disease it prevents. Model Answer: Praśasta-vāstu** (approved site), **śuci** (clean), **ātapavarjita** (free of excessive sun/heat), and **nivāta** (shielded from strong drafts)—preventing **śārīra** (bodily), **āgantu** (exogenous), and **mānasa** (mental) disorders.
3. **Q: List the five qualities of the bed (śayana) in Su.Sū. 19.5. Model Answer: Asambādha** (spacious/uncongested), **svāstīrṇa** (well-spread with soft, clean covers), **manojña** (pleasant), **prākśiraska** (head facing east), and **saśastra** (with a protective weapon).
4. **Q: What happens if a wounded patient sleeps during the day (divāsvapna)? Model Answer:** Per Su.Sū. 19.10, daytime sleep causes **kaṇḍū** (itching), **gātragaurava** (heaviness), **śvayathu** (swelling), **vedanā** (pain), **rāga** (redness), and profuse **srāva** (discharge).
5. **Q: What are the ingredients and schedule of dhūpana in Vraṇitāgāra (Su.Sū. 19.28), and is it equivalent to modern OT/ward sterilization? Model Answer:** Mustard (**sarṣapa**), neem leaves (**ariṣṭapatra**), ghee (**sarpi**), and rock salt (**lavaṇa**), burned twice daily for 10 days/nights (7 nights in palm-leaf MS). **No**, it is not equivalent to modern sterilization or disinfection: MoHFW IPC (2020) explicitly states routine fogging/formalin fumigation has no role in patient areas; **dhūpana** was a historical odor/fly-deterrent and protective practice.

6. **Q: How does Suśruta's psychosocial care (Su.Sū. 19.7–8, 25–26) compare with modern ward policy? Model Answer: Suśruta** recommends gentle-spoken companions (**suhṛdaḥ priyaṃvadāḥ**) telling uplifting stories (**kathā**) to relieve pain and inspire hope (**āśāvān**). Modern surgical wards share the goal of anxiety/pain reduction (supported by CBT/educational evidence, Rojas Marcos 2024), but regulate visitors via hand hygiene, illness screening, 1-attendant limits, and banning floral bouquets (MoHFW-IPC 2020, Annex 6).
7. **Q: Give one difference between Su.Sū. 19.4 (**nivāta**) and Caraka Sū. 15.6 (**Āturālaya**) regarding ventilation. Model Answer:** Su.Sū. 19.4 stresses **nivāta** (protection from drafts), whereas Ca.Sū. 15.6 specifies **nivātaṃ pravātaikadeśam**—draft-protected yet ventilated on one side—which bridges more closely to modern controlled cross-ventilation and directional air exchange.
8. **Q: What is the textual variant status of verse 36 (vraṇe śvayathurāyāsāt...) in Su.Sū. 19? Model Answer:** In the 1938 NIIMH / Yādavjī Trikamjī edition, verse 36 is printed in parentheses because **Ḍalhaṇa** notes only certain teachers read it between vv. 35 and 37, whereas **Gayadāsa** and others omit it.
9. **Q: Why is bālavyajana fanning (Su.Sū. 19.30) a critical comparison point for wound dressing? Model Answer: Bālavyajana** aimed to cool the patient and keep flies away gently without disturbing the wound (**na vighaṭṭayet**). However, waving a non-sterile hair-whisk near an open wound can shed particulates or microbes; modern wards prevent contamination using sterile closed dressings, clean air/screens, and disinfected dressing trolleys (MoHFW-IPC 2020, p. 197; WHO-SSI 2018, p. 20).
10. **Q: What is nakhaviṣa and which modern IPC pillar corresponds to preventing it? Model Answer: Nakhaviṣa** is **Ḍalhaṇa**'s commentary gloss on Su.Sū. 19.30 (**na tudenna ca kaṇḍūyet**), warning against subungual contamination and mechanical trauma from fingernails—directly paralleling kept-short unvarnished nails, WHO 5-Moment hand hygiene, and sterile gloves for wound dressing (MoHFW-IPC 2020, pp. 34, 89; WHO-IPC 2016, p. 17).

14 References and Further Reading

All web references were verified active and checked against primary documents on **18 November 2026**. Each citation key below corresponds directly to the inline citations throughout these study notes.

- **[NCISM 2024]** National Commission for Indian System of Medicine (NCISM), Board of Ayurveda. **Course Curriculum for Third Professional BAMS: Shalya Tantra (General Surgery), Subject Code: AYUG-ST** (Applicable from 2021–22 batch, 2024–25 onwards). New Delhi: NCISM; pp. 5–6, 32–33, 230, 240–243, 257–258. Local file: `3. NCISM_IIIBAMS_AyUG-ST.pdf`; official URL: https://ncismindia.org/3.%20NCISM_IIIBAMS_AyUG-ST.pdf (verified identical SHA-256; accessed 18 November 2026).
- **[NIIMH e-Suśruta]** Central Council for Research in Ayurvedic Sciences (CCRAS) – National Institute of Indian Medical Heritage (NIIMH), Ministry of Ayush, Government of India. **e-Saṃhitā: Suśruta Saṃhitā with Ḍalhaṇa's Nibandhasaṅgraha Commentary** (based on 1938 Yādavjī Trikamjī Ācārya / Nirṇaya Sāgara edition). Hyderabad: NIIMH. URL: https://niimh.nic.in/ebooks/esushruta/ (accessed 18 November 2026).
- **[e-Suśruta Sū. 19]** Suśruta Project (TEI-P5 digital capture of CCRAS-NIIMH 1938 edition). **Suśrutasaṃhitā, Sūtrasthāna, Chapter 19: Vraṇitopāsanīyādhyāyaḥ** (vv. 1–37, **Ḍalhaṇa**'s **Nibandhasaṅgraha**, and **pāṭhāntarāḥ** notes 1–21). URL: https://sushrutaproject.github.io/eTexts/eSushruta/sutrasthana/19-vranitopasaniyadhyayah/ (accessed 18 November 2026).
- **[e-Suśruta Sū. 5]** Suśruta Project (TEI-P5 digital capture of CCRAS-NIIMH 1938 edition). **Suśrutasaṃhitā, Sūtrasthāna, Chapter 5: Agropaharaṇīyādhyāyaḥ** (vv. 18, 34 and **Ḍalhaṇa** commentary). URL: https://sushrutaproject.github.io/eTexts/eSushruta/sutrasthana/05-agropaharaniyadhyayah/ (accessed 18 November 2026).
- **[Bhishagratna 1907]** Bhishagratna KL, editor & translator. **An English Translation of the Sushruta Samhita Based on Original Sanskrit Text, Vol. 1: Sutrasthanam** (Chapter XIX: **Vranitopasaniya**, pp. 172–178). Calcutta: Kaviraj Kunja Lal Bhishagratna; 1907 (public domain). URL: https://archive.org/details/in.ernet.dli.2015.43171 (accessed 18 November 2026).
- **[Caraka Saṃhitā Online]** Institute for Post Graduate Teaching and Research in Ayurveda (IPGT&RA) & CCRAS. **Caraka Saṃhitā New Edition — Sūtrasthāna Chapter 15: Upakalpanīya Adhyāya** (vv. 6–7, **Āturālaya**). Jamnagar: Charak Samhita Research, Training and Skill Development Centre. URL: https://www.carakasamhitaonline.com/index.php/Upakalpaniya_Adhyaya (accessed 18 November 2026).
- **[MoHFW-IPC 2020]** National Centre for Disease Control (NCDC), Directorate General of Health Services, Ministry of Health and Family Welfare (MoHFW), Government of India. **National Guidelines for Infection Prevention and Control in Healthcare Facilities**. New Delhi: MoHFW; January 2020 (first reprint March 2020); pp. 16–56, 59–88, 89–92, 134–140, 191–211, 229–232. URL: https://ncdc.mohfw.gov.in/uploads/pdf/amr19.pdf (accessed 18 November 2026).
- **[Kayakalp 2024]** Quality and Patient Safety Division, National Health Systems Resource Centre (NHSRC), MoHFW, Government of India. **Kayakalp: Rejuvenating the Public Healthcare Facilities** (4th ed.). New Delhi: MoHFW; June 2024; Annexure II Section A, pp. 71–90. URL: https://qps.nhsrcindia.org/sites/default/files/2024-07/Kayakalp%202024%20Guidebook.pdf (accessed 18 November 2026).
- **[NHSRC-NQAS 2020]** National Health Systems Resource Centre (NHSRC), MoHFW, Government of India. **Assessor's Guidebook for National Quality Assurance Standards (NQAS) in District Hospitals, Volume I** (Revised ed.). New Delhi: MoHFW; 2020; Area B (**Patient Rights**), Area E (**Clinical Care**), Area F (**Infection Control**), pp. 30–34, 40, 96–99. URL: https://qps.nhsrcindia.org/sites/default/files/2024-02/VOLUME-1-DH-Assessors-Guidebook.pdf (accessed 18 November 2026).
- **[NHSRC-HAI 2025]** National Health Systems Resource Centre (NHSRC), MoHFW, Government of India. **Technical Guidelines for Surveillance and Reporting of Healthcare Associated Infections: District Level Health Facilities**. New Delhi: MoHFW; 2025; pp. 5–8, 19–22. URL: https://qps.nhsrcindia.org/sites/default/files/2025-08/HAI%20Book_0.pdf (accessed 18 November 2026).
- **[WHO-SSI 2018]** World Health Organization (WHO). **Global Guidelines for the Prevention of Surgical Site Infection** (2nd ed.; ISBN 978-92-4-155047-5). Geneva: WHO; 2018; Executive Summary & Chapter 1, pp. 13–25. URL: https://www.who.int/publications/i/item/9789241550475 (accessed 18 November 2026).
- **[WHO-IPC 2016]** World Health Organization (WHO). **Guidelines on Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level** (ISBN 978-92-4-154992-9). Geneva: WHO; 2016; Executive Summary & Core Components 7–8, pp. 11–17, 67–70. URL: https://www.who.int/publications/i/item/9789241549929 (accessed 18 November 2026).
- **[CDC-Env 2003/2024]** Sehulster L, Chinn RYW; Centers for Disease Control and Prevention (CDC) & Healthcare Infection Control Practices Advisory Committee (HICPAC). **Guidelines for Environmental Infection Control in Health-Care Facilities (2003)**, updated July 2019; web recommendations updated 11 January 2024. URL: https://www.cdc.gov/infection-control/hcp/environmental-control/recommendations.html (accessed 18 November 2026).
- **[CDC-SSI 2017/2024]** Berríos-Torres SI, Umscheid CA, Bratzler DW, et al.; CDC/HICPAC. **Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017**. **JAMA Surgery** 2017;152(8):784–791 (`doi:10.1001/jamasurg.2017.0904`); CDC summary page updated 12 April 2024. URL: https://www.cdc.gov/infection-control/hcp/surgical-site-infection/ (accessed 18 November 2026).
- **[CDC-Iso 2007/2024]** Siegel JD, Rhinehart E, Jackson M, Chiarello L; CDC/HICPAC. **2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings**, updated September 2024; CDC portal updated 27 November 2023. URL: https://www.cdc.gov/infection-control/hcp/isolation-precautions/index.html (accessed 18 November 2026).
- **[Willner 2023]** Willner A, Teske C, Hackert T, Welsch T. **Effects of early postoperative mobilization following gastrointestinal surgery: systematic review and meta-analysis**. **BJS Open** 2023;7(5):zrad102 (`PMID: 37846641`). URL: https://pmc.ncbi.nlm.nih.gov/articles/PMC10580147/ (accessed 18 November 2026).
- **[Rojas Marcos 2024]** Rojas Marcos C, Schiller N, Braun S, et al. **Psychosocial Interventions to Reduce Post operative Pain in Total Knee Arthroplasty: A Systematic Review**. **HSS Journal** 2024;22(1):71–79 (`PMID: 39564413`). URL: https://pmc.ncbi.nlm.nih.gov/articles/PMC11572368/ (accessed 18 November 2026).