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भारतीय मानक मसौदा

नीरकुरी विश्लेषण - रीती संहिता

Draft Indian Standard

***Nīrkurī* (Uromacroscopy) Analysis - Code of Practice**

ICS 11.120.10

Siddha Sectional Committee, AYD 05

Last Date of Comments: 12-03-2025

FOREWORD

(Formal Clauses would be added later)

There is a growing global interest in indigenous health care systems, particularly for managing chronic lifestyle-related diseases. An integrated healthcare approach is necessary to meet modern society's diverse needs. Siddha medicine, an ancient Indian system, employs tailored therapies that include herbs, minerals, and dietary modifications based on individual characteristics such as constitution and environment.

Nīrkurī is a traditional diagnostic method assessing urine characteristics—colour, froth, weight, odour, and frequency. Analysing these factors provides insights into health status and potential diseases. Standardizing this technique will enhance its clinical utility and support Siddha practitioners, researchers, and health professionals in utilizing *Nīrkurī* as a method for preventive and personalized treatment within Siddha medicine.

This standard outline general requirements, key characteristics, and insights related to Siddha *Nīrkurī*. It aims to guide Siddha physicians, researchers, academics, and Siddha students in effectively practicing the *Nīrkurī* technique. The purpose is to establish *Nīrkurī* as a traditional diagnostic tool that can be effectively used for preventive, personalized, and prophylactic treatments in Siddha.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressed the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (Second Revision). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Draft Indian Standard
***Nīrkuṛi* (Uromacroscopy) Analysis - Code of Practice**

1 SCOPE

This standard specifies general requirements and code of practice details for *Nīrkuṛi* (Uromacroscopy) Analysis.

2 NORMATIVE REFERENCES

The standards listed below contain provisions which, through reference in this text, constitute provision of this standard. All standards are subject to revision, and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards.

IS 2619: 2018	Glass beakers – Specification (Third Revision)
IS 2618:2016 ISO 4142:2002	Laboratory glassware - Test tubes (Third Revision)
IS 9281(Part 3):1981	Specification for electronic weighing systems: Part 3 requirements

3 TERMS AND DEFINITIONS

For the Purpose of this standard, the following terms and definitions shall apply.

3.1 *Nīrkuṛi* – It is a method of diagnostic tool to view the characteristics of fresh urine by naked eye examination (Uromacroscopy). Colour, froth, weight, odour and frequency are the various factors to study the urine test. It is used to diagnose and predict the prognosis of various diseases and also reflects the status of the health.

3.2 *Nīr* - The term “*Nīr*” denotes Urine.

3.3 *Kuṛi* -The term “*Kuṛi*” means Sign.

4 REQUIREMENTS

4.1 DESCRIPTION

4.1.1 Beaker - The provisions of clause 7 of IS 2619: 2018 shall apply. The ideal capacity of the beaker being 800 ml.

4.1.2 Test tube – The provisions of clause 7 of IS 2618: 2016 shall apply. The ideal capacity of the test tube being not less than 30 ml.

4.1.3 Electronic Weighing Machines – The provisions of clause 3 of IS 9281(Part 3):1981 shall apply.

4.1.4 Colour chart - Colour reference charts as given in Clause 5 of this standard shall apply for comparison with the sample and further evaluation.

5 CODE OF PRACTICE FOR *NĪRKURĪ* (UROMACROSCOPY)

The following guidelines shall apply for principles and practice of Siddha diagnostic method *NĪrkurĪ* (Uromacroscopy).

5.1 The Classical Approach to Urine Sampling

- a) *Tēraiyaar's* principles of *NĪrkurĪ* and *NeykkurĪ* recommend specific pre-testing conditions for patients to achieve better results. The diet should consist of all six tastes, within recommended limits, and be consumed according to appetite at appropriate times.
- b) Urine samples for analysis should be collected early in the morning, ideally before sunrise, however, in cases of emergency and depending upon patient's condition, it may be collected at any time.
- c) The urine shall be voided in a glass vessel/ beaker and immediately preceded for *NĪrkurĪ* test (*NĪram*, *Nurai*, *Eṭai*, *Maṇam*, and *Eñcal*). Passing of urine shall not to be suppressed for long time, as it may affect the results.

5.2 Understanding *NĪrkurĪ*: Observations and Insights

Natural urine is described in Siddha texts as fresh urine that is not overly dense and free of sediment, indicating that it is healthy. A visual examination of fresh urine can reveal important diagnostic information through five key aspects: *NĪram* (Colour), *Nurai* (Froth), *Eṭai* (Weight), *Maṇam* (Odour), and *Eñcal* (Frequency).

5.2.1 *NĪram* (Colour)

- a) Siddha literatures explain five different colours of urine, such as yellow, red, green, black, and white. They can indicate various health conditions. For instance, clear urine may suggest *Vali* disease, yellow may indicate *Azhal* disease, and white could point to *Aiyam* disease. The blending of different colours indicates the combination of the three humours.
- b) Urine colour can vary greatly, with each primary colour having several variants: yellow has six, red has four, green has five, black has four, and white has two. These classic urine colour variants are mentioned in the accompanying Table 1.
- c) Normal urine colour is influenced by water intake and the concentration of urochrome. Changes in urine colour can result from pigments in food, medications, or health issues.
- d) Assessment of urine colour shall be done by comparing against the colour charts provided as in Fig 2, 3, 4, 5, 6, and 7. The provisions of clause 4, Table 1 of IS 5 2007 Reaffirmed 2012 shall apply. (Colours for Ready Mixed Paints and Enamels Sixth Revision.)
- e) *NĪrkurĪ* observations and results must comply with the inferences outlined in Siddha texts regarding observations on colour, odour, froth, weight -density, and volume-frequency as specified in Annex A.

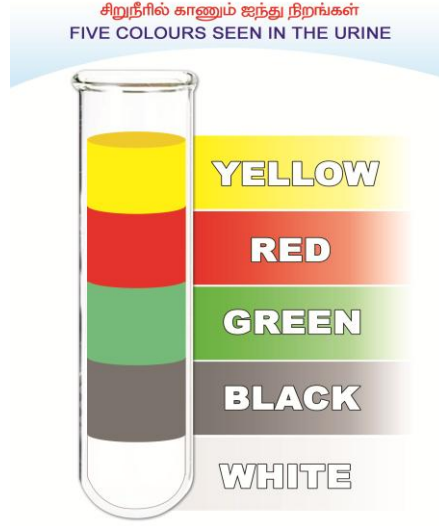


Figure 1

Table 1: COLOUR VARIANTS - CHART

YELLOW (Figure 2)	RED (Figure 3)	GREEN (Figure 4)	BLACK (Figure 5)	WHITE (Figure 6)
Hay soaked rain water (<i>Vaikkōl ūriya maḷai nīr niṛam</i>)	Reddish black colour (<i>Karuñcivappu Niṛam</i>)	Dark green colour (<i>Karumpaccai Niṛam</i>)	Black saffron colour (<i>Karuñkuñkuma pū Niṛam</i>)	Clear white colour (<i>Teḷinta veḷḷai Niṛam</i>)
<i>Citrus aurantium</i> L. fruit colour (<i>Turuñcil paḷam Niṛam</i>)	Red rose petal colour (<i>Civappu rōjā pūvitaḷ Niṛam</i>)	Green sky colour (<i>Paccai vāṇam Niṛam</i>)	Reddish black saffron colour (<i>Karuñ kuñkumappū niṛattil cem'mai Niṛam</i>)	Milk white colour (<i>Pāl veḷḷai Niṛam</i>)
Reddish yellow colour (<i>Cem'mañcaḷ Niṛam</i>)	Reddishness in black colour (<i>Karumaiyil cem'mai Niṛam</i>)	Turquoise blue colour (<i>Paccaiyil nīla Niṛam</i>)	Green shade in black colour (<i>Karuppil pacumai Niṛam</i>)	-
Wild <i>Citrus medica</i> L. colour (<i>Kāṭṭu nārattai paḷa Niṛam</i>)	Pure red colour (<i>Taṇitta cikappu Niṛam</i>)	Aquamarine colour (<i>Kaṭal nīlappaccai Niṛam</i>)	Grey colour (<i>Karuppu veḷḷai kalanta iḷam pukai Niṛam</i>)	-
Fire flame colour (<i>Neruppu juvālai Niṛam</i>)	-	Leaf green colour (<i>Ilai paccai Niṛam</i>)	-	-
Yellow with saffron streaks (<i>Mañcaḷ niṛattil kuñkuma pū kōṭukaḷ</i>)	-	-	-	-

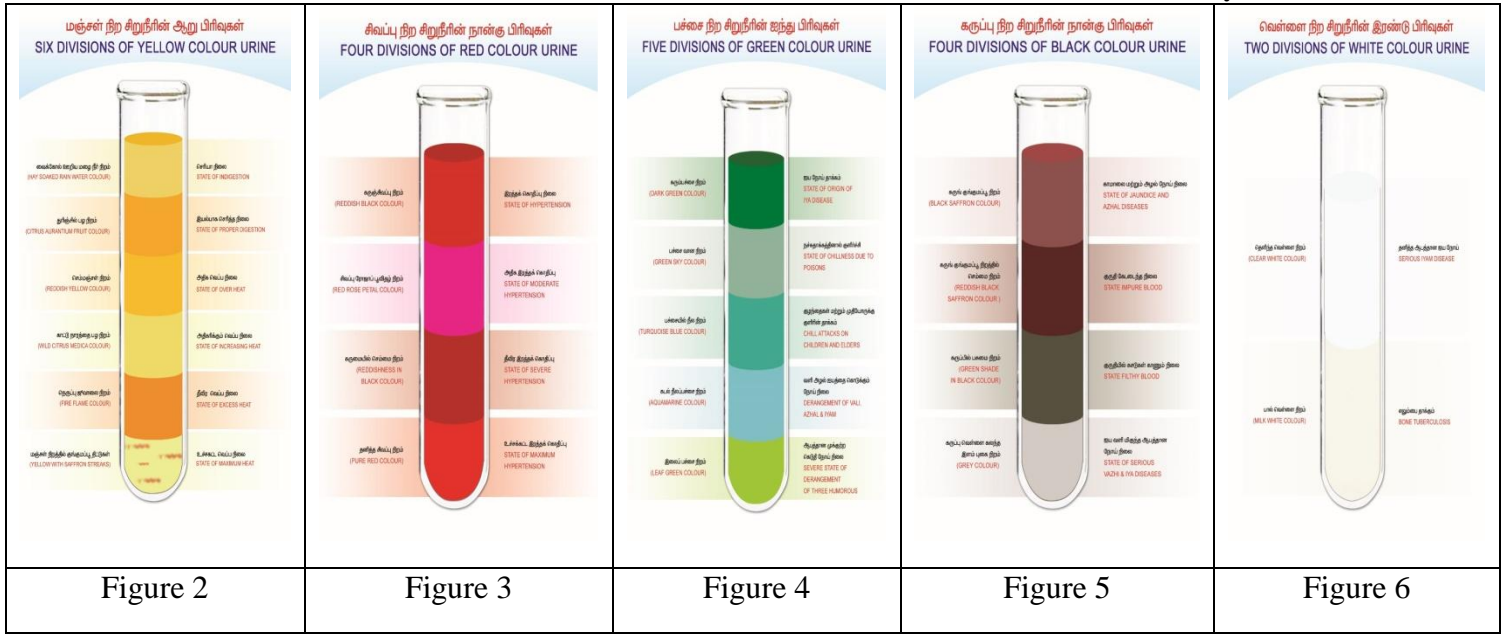


Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

5.2.2 Nurai (Froth)

Frothy urine, bubbling, passing urine without froth, multicoloured froth. If five types of *Aiyam* namely *Avalampakam*, *Kilētakam*, *Pōtakam*, *Tarpakam*, and *Cantikam* becomes degenerated along with *Vali*, copious froth will be formed resulting in frothy urine. Multicoloured bubbles are formed in the urine and number of bubbles shall be counted manually.

5.2.3 Eṭai (Weight and density)

Observations in urine density variations: normal, less dense (lighter), denser (heavier), or semen-like. Weight is measured in grams using a weighing scale, and volume is measured in milliliters with a beaker.

Density, $D=M/V$ expressed in units of grams per milli liter. where D is density (weight), M is mass, and V is volume;

5.2.4 Eñcal (Volume and frequency)

Eñcal is the frequency of urine and volume of urine. It is measured 24-hourly starting from the time before sunrise on previous day to the same time before sunrise on test day. The volume and frequency of urine is measured in *Nāḷi*, *Paṭi* as described in Siddha literatures. Observations include Anuria, oliguria, polyuria depending upon the measurement of volume.

5.2.5 Maṇam (Odour)

Observations include odour of burning fire, honey, sweetness, fat, flowers, fruits, tamarind, stag and raw flesh. In most circumstances, the urine of healthy people will not have a strong odour. Urine with a pungent odour may mean that it is more concentrated and signifies an underlying medical condition.

6 EXPRESSION OF RESULT

- a) The findings are to be correlated with the presenting complaints of the patients; and recorded.
- b) Leading questions are to be asked and logical derivations used to interpret the diagnosis; and
- c) The results are analyzed based on the affected *Mukkuṛram* and the impacted *capta tātu*, expressed as the subjective signs, and findings as per suitable format (Annex B and C)

7 REPEATABILITY

The accuracy of the repeatability is obtained by at least two consecutive readings of the same urine sample at the same time.

8 DATA COLLECTION PROFORMA REQUIREMENTS

8.1 Basic demographic description of subjects

Fresh data of the patients should be collected either through case record forms (CRF) or questionnaire/case reports. CRF could be generated according to the expected specific outcome of the studies or in general. Information such as demographic details, clinical history relatable to *Nīrkuri* and vital data on current clinical status are to be presented in the data collection proforma. A model CRF for Diagnostic cum Validation studies of *Nīrkuri* is given in Annexure F and G for reference.

9 OTHER CONSIDERATIONS

The *Nīrkuri* test can be used to analyse the state of the *Mukkuṛram* and *capta tātu*. The analysis can be more productive when the body constitution (*Uṭal tātu/ Yākkai ilakkaṇam*) as per Siddha science is also taken into consideration along with other details. This analysis is to be used as an effective diagnostic tool to improve the accuracy of the disease prediction and its correlation with the appropriate treatment regime.

ANNEX A

Table 1 Indications for Colour Observation as per Siddha Texts

S.No.	NĪRKURI OBSERVATIONS	INFERENCE
1.	Hay soaked rain water colour (<i>Vaikkōl ūriya maḷai nīr niṛam</i>)	State of indigestion (<i>Ceriyā nilai</i>)
2.	<i>Citrus aurantium</i> L. fruit colour (<i>Turuñci paḷam Niṛam</i>)	State of proper digestion (<i>Iyalpāka ceritta nilai</i>)
3.	Reddish yellow colour (<i>Cem'mañcaḷ niṛam</i>)	State of overheat (<i>Atika veppa nilai</i>)
4.	Wild <i>Citrus medica</i> L. colour (<i>Kāṭṭu nārattai paḷa Niṛam</i>)	State of increasing heat (<i>Atikarikkum veppa nilai</i>)
5.	Fire flame colour (<i>Neruppu juvālai Niṛam</i>)	State of excess heat (<i>Tīvira veppa nilai</i>)
6.	Yellow with saffron streaks (<i>Mañcaḷ niṛattil kuṅkuma tīṭṭukaḷ</i>)	State of maximum heat (<i>Uccakaṭṭa veppa nilai</i>)
7.	Reddish black colour (<i>Karuñcivappu Niṛam</i>)	State of hypertension (<i>Ratta kotippu nilai</i>)
8.	Red rose petal Colour (<i>Cikappu rōjā pū itaḷ Niṛam</i>)	State of moderate hypertension (<i>Atika ratta kotippu</i>)
9.	Reddishness in black colour (<i>Karumaiyil cem'mai Niṛam</i>)	State of severe hypertension (<i>Tīvira ratta kotippu</i>)
10.	Pure red colour (<i>Taṇitta cikappu Niṛam</i>)	State of maximum hypertension (<i>Uccakaṭṭa ratta kotippu</i>)
11.	Dark green colour (<i>Karumpaccai Niṛam</i>)	State of origin of <i>iyam</i> disease (<i>Aiya nōy tākkam</i>)
12.	Green sky colour (<i>Paccai vāṇam Niṛam</i>)	State of chillness due to poisons (<i>Naccu tākkattiṇāl kuḷircci</i>)
13.	Turquoise blue colour (<i>Paccaiyil nīla Niṛam</i>)	Chill attacks on children and elders (<i>Kuḷantaikaḷ maṛṛum mutiyōrukku kuḷirin tākkam</i>)
14.	Aquamarine colour (<i>Kaṭal nīlappaccai Niṛam</i>)	Derangement of <i>vali azhal</i> and <i>aiyam</i> (<i>Vali azhal Aiyattai Koṭukkum nōy nilai</i>)
15.	Leaf green colour (<i>Ilai paccai niṛam</i>)	Severe state of derangement of three humours (<i>Āpattāṇa mukkurra keṭuti nōy nilai</i>)
16.	Black saffron colour (<i>Karuṅkuṅkuma pū Niṛam</i>)	State of jaundice and <i>azhal</i> diseases (<i>Kāmālai maṛṛum azhal nōy nilai</i>)
17.	Reddish black saffron colour (<i>Karuṅ kuṅkumappū niṛattil cem'mai Niṛam</i>)	State impure blood (<i>Kuruti kēṭu aṭainta nilai</i>)
18.	Green shade in black colour (<i>Karuppil pacumai Niṛam</i>)	State filthy blood (<i>Kurutiyil kacaṭukaḷ kāṇum nilai</i>)
19.	Grey colour (<i>Karuppu veḷḷai kalanta iḷam pukai Niṛam</i>)	State of serious <i>vali</i> and <i>iya</i> diseases (<i>Aiya Vali mikunta āpattāṇa nōy nilai</i>)
20.	Clear white colour (<i>Teḷinta veḷḷai Niṛam</i>)	Serious <i>iyam</i> disease (<i>Taṇitta āpattāṇa Aiya nōy</i>)
21.	Milk white colour (<i>Pāl veḷḷai Niṛam</i>)	Diseases affecting bone (<i>Elumpai tākkum nōy</i>)

Table 2 Indications for Froth Observation as per Siddha Texts

S.No.	NĪRKURI OBSERVATIONS	INFERENCE
1.	Yellow, Black and Red frothy urine	Jaundice (<i>Kāmālai</i>)
2.	Less froth	Deranged three humours (<i>Mukkurram</i>)
3.	Frothy and white	Chronic <i>Aiya</i> diseases (<i>Tīvira Aiya nōy</i>)

Table 3 Indications for DENSITY (WEIGHT) Observation as per Siddha Texts

S.No.	NĪRKURI OBSERVATIONS	INFERENCE
1.	Light and crystal clear	<i>Aiya</i> disease

Table 4 Indications for Urine Odour Observation as per Siddha Texts

S.No.	NĪRKURI OBSERVATIONS	INFERENCE
1.	Very bad odour	Ulcers in bladder and urethra
2.	Tamarind odour	Heat ailments
3.	Sugar boiling odour	Excess of blood cells like malignant diseases
4.	Black stag urine odour	Disorder of <i>Azhal Kurram</i>
5.	Raw flesh odour	Degeneration of body muscle or muscle wasting
6.	Odour of Ghee, cow urine, pus, and myosin muscle serum	<i>Vali</i> humour diseases
7.	Odour like elephant fat, aloe juice, Fuller's earth (<i>Pūnīru</i>), sweet melting consistency, and rabbit blood	<i>Azhal</i> humour diseases
8.	Odour like clear breast milk, tender coconut, lustre brightness, semen, sea water, rice washed water and foul-smelling water	<i>Aiya</i> humour diseases

Table 5 Indications for Volume and Frequency Observation as per Siddha Texts

S.No.	NĪRKURI OBSERVATIONS	INFERENCE
1.	Less or scanty urination	Anaemia
2.	Urination more than normal	<i>Piramēkam</i> , <i>Matumēkam</i> , <i>Veku mūttiram</i> and <i>Vellai nōy</i>

EXPLANATORY NOTE:

Odour and froth though very important, cannot be determined in absolute units. Since both the measures lack mathematical expression nevertheless a qualitative test is prescribed. In case of doubt, as to evaluate the intensity or character of odour and froth, a majority opinion of several observers shall be recorded. IS 3025 (Part 5) – 2018 shall be referred to, for more information on odours.

ANNEXURE B

SAMPLE CASE RECORD FORM

Mūttiram (Urine)

- First sample : _____
- Random sample : _____

Nīrkuṛi (Plain Urine examination)

Time of Urine sample collection : _____

Time of Urine Testing : _____

Duration of observation : _____

Nīram (Colour) : _____

YELLOW

- Hay soaked rain water colour
- *Citrus aurantium* L. fruit colour
- Reddish yellow colour
- Wild *Citrus medica* L.
- Fire flame colour
- Yellow with saffron colour

RED

- Reddish black colour
- Red rose petal colour
- Reddishness in black colour
- Pure red colour

GREEN

- Dark green colour
- Green sky colour
- Turquoise blue colour
- Aquamarine colour
- Leaf green colour

BLACK

- Black saffron colour
- Reddish black saffron colour
- Green shade in black colour
- Gray colour

WHITE

- Clear white colour
- Milk white colour

Eṭai & Nirai (Weight and density) : _____

- Urine to be passed with density
- Light weight
- Over density
- Urine to pass like semen

Maṇam (Odour) : _____

- Odour of burning fire

- Odour of honey
- Odour of sweetness
- Odour of fat
- Odour of flowers
- Odour of fruits
- Odour of tamarind
- Odour of stag
- Odour of raw flesh

Nurai (Froth) : _____

- Frothy urine
- Bubbling
- Passing urine without froth
- The froth to be in multi colours

Eñcal (Volume - Frequency)
Tiṇa aḷavu (Daily volume-1200 ml) : _____

- Scanty
- Excess

Ulleedu-velieedu alavu (I-O Chart) : _____

Murai/Thadavai (Frequency- 6 times/day)

Voiding frequency : _____

- Increased
- Diminished

Miscellaneous

Kalappu (Mingling) : _____

- Mingling of blood with urine
- Urine passing like pure water
- Passing like flesh washed water
- Mingling of white discharge like thread
- Blood before and after urination
- Dysuria
- Burning micturition
- Passing like slaked lime water
- Urine passing like buttermilk, curd, milk or ghee
- Urine with pus
- Urine passing with stones
- Urine passing with flesh or scales
- Others

Paṭivu (Deposits) : _____

ANNEXURE C

DATA PROFORMA

UHID	Name of the patient	Occupation	Age	Sex	Diet	Nilam (Tick Appropriately)																	
					Veg	N.V	<i>Kuṛiñci</i>	<i>Mullai</i>	<i>Marutam</i>	<i>Neytal</i>	<i>Pālai</i>												
Date	<i>Nāṭi kālam</i>	<i>Nāṭi naṭai (Pulse Reading) Please Tick</i>										<i>Yākkai ilakkaṇam (Body Constitution) Please Tick</i>											
	V P K	V P K	V P K	V P K	PV PK	KV KP	MK	V P K	VP VK	PV PK	K V K P	MK											
Time of Collection	General observation					<i>Perum poḷutu (Tick Appropriately)</i>					Kak		Kuk		Mpk		Ppk		Ivk		Mvk		
	Colour (<i>Niṛam</i>) Weight and Density (<i>Eṭai</i>) Odour (<i>Maṇam</i>) Froth (<i>Nurai</i>) Volume and Frequency (<i>Eñcal</i>) Mingling (<i>Kalappu</i>) Deposits (<i>Paṭivu</i>)					Observation																	
Time of testing						Interpretation																	
Duration of Observation																							

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AYD 05 (24811)
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Clinical Findings and Presenting complaints										Observations from <i>Nīrkuṛi</i> test														
1										1														
2										2														
3										3														
4										4														
5										5														
Comorbidities	DM/HTN/CKD/Thyroid/Heart disease/Others (Specify):																							
Examination of <i>Capta tātukkaḷ</i> (7 primary constituents)	<i>Cāram</i>			<i>Cennīr</i>			<i>Ūṇ</i>			<i>Koḷuppu</i>			<i>Eṇṇu</i>			<i>Mūlai</i>			<i>Cukkilam/Curōṇitam</i>					
	S	I	D	S	I	D	S	I	D	S	I	D	S	I	D	S	I	D	S	I	D			
Photo images of <i>Nīrkuṛi</i> observation	Photo						Photo						Photo						Photo					
Description																								
Subject	Description																		Tick					

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Category of Reading	a. True Positive symptoms (TP) – Clinical presentations coinciding with <i>Nīrkuri</i> Test	[]
	b. Sequence of True Positive symptoms (SqTP) – Clinical presentations coinciding with multiple <i>Nīrkuri</i> test readings showing a sequence of origin and progress	[]
	c. False-positive symptoms (FP) – Subjects not presenting, expressing, or having the symptoms even though the features are shown in the particular reading	[]
	d. False-negative symptoms (FN) – Subject is presenting the symptom or disease that has no description in the obtained results	[]
Attachments (If available)	e. Investigations: Serological/Urine samples/others (Specify)	[]
	f. Imaging: X-ray/Scan/others (Specify)	[]
	g. Previous case/Medical record (Copy)	[]
	h. Photographs/Images of Other <i>Eṇvakai tērvu</i> and its reports	[]

UHID: Unique Health Identification Number, V: *Vātam*, P: *Pittam*, K: *Kapam*, VP: *Vātapittam*, VK: *Vātakapam*, PV: *Pittavātam*, PK: *Pittakapam*, KV: *Kabhavatham*, KP: *Kapapittam*, MK: *Mukkuraṁ*, Kak: *Kārkālam*, Kuk: *Kūtirkālam*, Mpk: *Muṇṇaṇikkālam*, Ppk: *Pinṇaṇikkālam*, Ivk: *Iḷavēṇirkālam*, Mvk: *Mutuvēṇirkālam*, S: Sufficient, I: Increased, D: Decreased

NOTES

1. *Nīrkuri* test results should not be interpreted alone; it must be correlated with clinical information and be interpreted by Registered Siddha Medical Practitioners to arrive at Clinical diagnosis.
2. *Nīrkuri* test results may vary based on time, season, physiological condition of the patient, current medication, or nutritional and dietary changes. A Registered Siddha physician shall be consulted for further clarification.
3. *Nīrkuri* test results cannot be used for Medico-legal purposes.