



Dosage schedule for stress test

Body weight kg	Rate of infusion ml/hour				
	Normal dosage	Dosage at dose reduction, if any			
		Step 1	Step 2	Step 3	Step 4
40	67	53	38	24	10
42	71	55	40	25	10
44	74	58	42	26	11
46	77	61	44	28	11
48	81	63	46	29	12
50	84	66	48	30	12
52	87	69	50	31	12
54	91	71	52	32	13
56	94	74	54	34	13
58	97	77	56	35	14
60	101	79	58	36	14
62	104	82	60	37	15
64	108	84	61	38	15
66	111	87	63	40	16
68	114	90	65	41	16
70	118	92	67	42	17
72	121	95	69	43	17
74	124	98	71	44	18
76	128	100	73	46	18
78	131	103	75	47	19
80	134	106	77	48	19
82	138	108	79	49	20
84	141	111	81	50	20
86	144	114	83	52	21
88	148	116	84	53	21
90	151	119	86	54	22
92	155	121	88	55	22
94	158	124	90	56	23
96	161	127	92	58	23
98	165	129	94	59	24
100	168	132	96	60	24
102	171	135	98	61	24
104	175	137	100	62	25
106	178	140	102	64	25
108	181	143	104	65	26
110	185	145	106	66	26
112	188	148	108	67	27
114	192	150	109	68	27
116	195	153	111	70	28
118	198	156	113	71	28
120	202	158	115	72	29
122	205	161	117	73	29
124	208	164	119	74	30
126	212	166	121	76	30
128	215	169	123	77	31
130	218	172	125	78	31



Dosage:

Initially the infusion rate should be 140 µg/kg/minute.

Formula for manual calculation:

$$0.14 \text{ mg} \times \text{kg} \times 60 \text{ min}/5 \text{ mg} = \text{infusion rate ml/hour}$$

If there is a pronounced fall in blood pressure (>25% of the baseline blood pressure), the infusion rate should be reduced stepwise with 30 µg/kg/minute in one minute intervals (according to the schedule).

Formulas for manual calculation of infusion rate at reduction = infusion rate ml/hour:

Step 1: 0.11 mg x kg x 60 min/5 mg

Step 2: 0.08 mg x kg x 60 min/5 mg

Step 3: 0.05 mg x kg x 60 min/5 mg

Step 4: 0.02 mg x kg x 60min/5 mg

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Adenosin Life Medical



Dosage

In conjunction with myocardial radioisotope scanning (thallium or technetium) and echocardiography ADENOSIN LIFE MEDICAL is infused intravenously into a peripheral vein. Normally the infusion rate should be 140 µg/kg/minute. During the scanning assessment adenosine is administered during 4-6 minutes, and the applicable isotope is injected after 3 minutes of adenosine infusion. Normally the infusion is continued for 2 minutes after the isotope has been injected. In order to reduce the side effects, the infusion can be combined with low intensity exercise.

If there is a pronounced fall in blood pressure (more than 25% of the baseline blood pressure), dose reduction should be considered (e.g. a stepwise reduction of 30 µg/kg/minute with 1 minute intervals) in order to avoid further fall in blood pressure.

Control of treatment

Careful monitoring of the patient is essential. The investigation should be carried out by a physician with the necessary specialist knowledge and in a clinic having equipment for acute cardiac care.

Contraindications

- AV-block grade II or III
- Sick sinus syndrome in patients who do not have a functioning pacemaker
- Patients with long QT-intervals
- Severe obstructive lung disease
- Raised intracranial pressure
- Hypovolaemia
- Concomitant treatment with dipyridamole

Warnings and precautions

- Bronchial asthma or obstructive lung disease

Side effects

Most side effects are mild and disappear rapidly (within a few minutes). The most common side effect is chest pain (approx. 40%). In order to reduce the side effects, the infusion can be combined with low intensity exercise.

Common (> 1/100)	<i>General:</i>	Pain in the head, chest and jaw, vertigo
	<i>Circulation:</i>	Flush, AV-block I-II, ST-depression
	<i>GI:</i>	Nausea, epigastric pain
	<i>Respiratory:</i>	Dyspnoea

Less common	<i>Circulation:</i>	Palpitations, hypotension, AV-block III
	<i>Respiratory:</i>	Hyperventilation

Rare (<1/1000)	<i>Respiratory:</i>	Bronchospasm
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Rare cases of bronchospasm (also severe) have occurred, also in patients not suffering from bronchial asthma or obstructive pulmonary disease.

How to perform the Adenosine radioisotope scanning

♥ Ask the patient about current medicines.

If the patient has known asthma, obstructive lung disease or is taking asthma medication, the doctor in charge should decide if, in spite of this, the examination should be performed. Also, if the patient has drunk coffee or tea during the previous 12-24 hours.

Remember that dipyridamole is contraindicated.

♥ Connect ECG as usual and measure the blood pressure. In case of hypotension (systolic blood pressure <100 mmHg) ask the doctor in charge if the examination should be performed.

♥ Insert **two input port catheters**, one in each arm; - one for the isotope injection (also place the sphygmomanometer cuff on this arm) - one for the adenosine infusion

♥ **A piece of advice:** It will be considerably easier to inject without waste if you connect an infusion tube (approx. 60 cm) to the isotope needle, especially if the patient is bicycling at the same time!

♥ **It is a good idea to leave an input port catheter in place** until the examination has been completed, i.e. until after the scanning.

♥ Tell the patient that **adenosine is a powerful vasodilator**. Any **discomfort therefore is normal** and confirms the expected effect of the adenosine on the blood supply to the heart. In order to reassure the patient, tell him/her that the chest discomfort (also if it is strong) rapidly **disappears as soon as the infusion is finished**.

♥ **In order to reduce the side effects**, the infusion can preferably be combined with low intensity exercise at the same time.

♥ **Continuous ECG recording** during the adenosine infusion, and also for a few minutes after the infusion is finished, is recommended.

♥ **The blood pressure should be monitored** every minute or every other minute during the adenosine infusion, and after the infusion until the blood pressure is normal.

♥ The applicable isotope is usually injected after three minutes of adenosine infusion.

♥ The infusion usually continuous for 2 minutes after the isotope has been injected. After 4-6 minutes the adenosine infusion is finished. The patient may then return to the bed.

♥ **Please note!** The doctor should be present during the whole time of the adenosine infusion.