Royal College of Obstetricians & Gyn



urn, p,nn

• $s s \cdot q = rst_1 \cdot t \text{ on } o_2 \cdot q \cdot s \cdot q \cdot q$

, , , , , , , , , , o , , , o n , , on,

Prepregnancy counselling

o $n = 2.2 \times 10^{\circ}$, n = 0 , $p_{22} = 1.2 k + 2.2 \times 2.2 \times 10^{\circ}$, $n = 0.2 \times 10^{\circ}$

Red cell antibodies in pregnancy

Also n_{2} , Q $|_{2}$, $_{2}$, $_{3}$, $_{4}$, $_{5}$, $_{6}$, $_{1}$, $_{1}$, $_{1}$, $_{2}$, $_{3}$, $_{4}$, $_{5}$, $_{6}$, $_{6}$, $_{6}$, $_{7}$, $_{1}$, $_{1}$, $_{1}$, $_{2}$, $_{3}$, $_{4}$, $_{5}$, $_{6}$, $_{7}$, $_{7}$, $_{7}$, $_{7}$, $_{8}$, $_$

. t. r. t. h. p., tons for t. z tus, n. n. on, t. srd. r., n. nt, o., s

. , n, n o o ou, p, t rn, , n z t, , not p n, , p, rook ,

 0_1 , 0_1 , 0_2 , 0_3 , 0_4 ,

. It r so s so u_{r} , u_{r} for r, v_{r} rousent, v_{r} rousent, v_{r} so s so s to s

C

An, n, n = 0.0, n = 0





.. p_{ℓ} , n_{ℓ} o , n



n, , t, t, o of not out nt, o , y s, l on tor, urn, pr, n n

An $\underline{\quad}$, $\underline{\quad}$,





 $p_1 = 0$, $p_2 = 0$, $p_3 = 0$, $p_4 = 0$,





Ho & ou, pr, nn, strs orzt, n, l ontor





Let transus on strqut, • ttp or onor, oo • ou, , us,

 $A \times H \times P_{1} \times P_{2} \times P_{3} \times OR_{2} \times OR_{3} \times OR_{4} \times OR_{4$

If $x \neq 0$ proper property on $x \neq 0$ on x

Ho of not our pron not do not represent the second property of the property o

... n, n, 0 $n \in \mathcal{A}$ $A \in \mathbb{N}$... $n \in \mathbb{N}$

Li t rn tr ns us on s r qu r . • t t p o o onor o o or o o d pon nts ou us .

 $A = \{ (1, 0) \text{ pon } (n, 0) \}$, $AB = \{ (p, n) \}$, $AB = \{ (p, n) \}$, $AB = \{ (n, k, 0) \}$, $AB = \{ (n, k,$

An _ _ _ no |o_ | n_ , |o_ | \ _ = n_ o , |n_ | , |e_ | o n_ , |non_ n_ _ , n_ o | , |o_ | , |o_ | o_ , |o_ |

 $p_i \circ p_i \circ p_i$

. $n_1 = 0$. $n_2 = 0$. $n_3 = 0$. $n_4 = 0$. $n_$

Requirements for blood

 $. \bullet , t, r, \bullet, , o, st, so-o, t, nn, , oo, or, oo, , d pon nts-or \bullet, d , n = tus or n on t$ $Boo, or, oo, , d pon nts-or \bullet, d , n$

Cord blood investigations

. t, or , oo ny st, t ons ou , p rot ,

Management

Ho & ou, &, n on t,, \ n,

..., p n , on ..., $a_{n-1} = a_{n-1} = a_{n-$

C n_1 , n_2 , q_1 , q_2 , q_3 , q_4 , q_4 , q_4 , q_5 , q_6 , q_6 , q_6 , q_6 , q_7 , q_8 ,

Future Risks

• t st, rs of urt n, n sutur pr n n

Long-term consequences of red cell antibodies to women and their offspring

• t, r, t, on, t, r, on, qu, n, s ort, d, n

0 $n_{11}n_{11}$ n_{12} n_{13} n_{14} $n_$

.• , t, \mathbf{r} • , on, \mathbf{r} • , \mathbf{r} , on, rns or • , • , \mathbf{r} no or • • , \mathbf{r} , \mathbf{r} , or , \mathbf{r} , \mathbf{r} , or , \mathbf{r} , \mathbf{r}

C n_1 , n_2 , q_1 , q_2 , q_3 , q_4 , q_4 , q_5 ,

.- ., , po, , n , , op

purpos of s u, n s to prov, u, n, on t i n i n to pr, n nt d n t r, n, n, nt o, s pr, n nt d n t r, n, n, nt o, s pr, t n, t, pr, n n or t os, v, op n, nt, o, s urn, pr, n n , u, n, n oso n, u, st, i n, i n to pr, t, n, i n, us, r, n, nt, o, s s, n, st, r i n, i n to pr, n nt d n t r s o, n, i n, n or p, r, ru, n, i lt, o, s not, r, sst, i n, i n, n to pr, n nt d n t n t p, t, t, nt, o, s or ot, r, uto i un or not i un nt, o, s

$\chi = -1$ $n_{i,i}$ $\alpha_{i,j}$ $\alpha_{i,$

- proprose pro

Ant D s t, host, d hon, nount r, nt, Q urn, pr, n n B sor rout n nt n t, nt D prop s t, h h unston urn, s rst pr, n n s r spons, y sor o s s h unston urn, s on or susquint pr, n n pro, , , , ounts sor short proport on o s s s hout t s of n h poss, to stn, ut t s nst s t on srd s ur o prop s t t, n o t, n o t, pr, n, pr, n n Ant, Q, s o t, AB, o Q, roup s s h n so, us h to h Q, rt, n, h n un, n un, n on t, n o, s on n n t, s tus In p rt, u r nt A n nt B nt, Q, s o t, I, G su, s s n, roup hot, r, n, rosst, p, nt, n, us n, us n, rot rots

Ant (u, u, s, n, h), (s, on, r) to (r, q, r) suppression (n, h) un (s, r) struction of (r, q, r) in (r, q, r) so (n, h), (r, q, r) in (r, q, r) so (r

6.4 When and how should paternal and fetal genotyping be performed?

on new parameters on the norm of the new parameters of the new pa

It so so room, to do to to room, to stone no proper room to ro

Inv s γ γ st n, so, sort, purpos s or γ to γ not p n, s γ do γ qu γ . st s... n, γ un, rt, n us n, γ to γ or γ or γ or γ s. Ho, γ or γ or γ or γ s. From γ or γ

In _ ton to \mathbf{t} , pro_ ur r t _ rs s _ n _ nv s v _ pro_ ur _ _ _ _ ur t _ r _ n _ r _ s _ t _ rs _ or _ _ uns t on \mathbf{t} rought, respectively not one of \mathbf{t} rought, respectively not \mathbf{t} rought, respectively not one of \mathbf{t} rought, respectively not one of \mathbf{t} rought, respectively not \mathbf{t} rought, resp

, p, rt , sş sk , nt o-rs , , n , , un , rt , n For \P , ş - d , n u tr soun \ on tor n \ \ , , , \ r qu r , \ v n \ \ o \ , nt , \ Q - q \ v \ s

Ant ttrs.pp, rto, orr, t poor \P \P , syrt or s.s. \P T t. n., h., o, urr n, tttrs.s.

6.8 Once detected how often should antibody levels be monitored during pregnancy?

An $\underline{\quad}$ in \underline

A. Q. $n_1 = 1$, $n_2 = 1$, $n_3 = 1$, $n_4 = 1$, n_4

 $p_{i}=0$, p_{i} on p_{i} on

o., pp, op, . . . ا من ينظم على ا ا ا من ينظم على ا ا ا ا من الله على الله على الله على الله على الله على الم الله على الله على المن الله على الله على المن على المن على الله على الله على الله على الله على الله على الله ع

• , , us of , , , old unston ou, , , s, rt n, , for, dep, n, qut or dett, , nt D prop s or pr v ous oo tr ns us on D t s or pr v ous pr , n n , s yr n t n, n, sor, n, tr ns-us ons or p otot, r p. s ou, so, o, t n, s s nor ton, n, s rs ss st, nto-t, pr, n n to, 1 , tr soun 1 on tor n, to out , dl, n, on, t, r, s, lo, r, t, or s, v, r, s, or z, t, n, l, t

In a strs soul, a posty, to make the street of the street t the tsu, styting nou, poor in noss nog hand red , ... At out tyrs s t, rs s sor ot, r, ss, d. l. on, nt, o, s s, ss, ut to pr, s, qu, nt s- Ar, son, , ppro, ou, ,,

tr sound on torn, ou, property property property property : CA Doppy respect, nterm to necessity to the sound of starts of Ging, o o, prest, u, n s or t, us or Dopp, r u tr sono, r n o st tr si L-t, s CA r s s, on t, nt ry nt on the of the of the state of the s

SCA P I on torn, spr., ty on Q, rt orsy, rt, n, I . The spring sp ris posty rt ort

In on tor n, or \mathbf{q} , $\mathbf{C}\mathbf{A}$ n, \mathbf{q} is \mathbf{n} , \mathbf{q} is $\mathbf{C}\mathbf{A}$ and \mathbf{q} is \mathbf{q} in \mathbf{q} . The one of \mathbf{q} is \mathbf{q} is \mathbf{q} is \mathbf{q} is \mathbf{q} . The one of \mathbf{q} is \mathbf{q} . with, r. v., soul, soul tord of the sp., st, p, r, n, m, n, r, t, n, Furt, rl n, l, nt ou so, , s uss. t , t l, , n sp, st > CA . v s r not s, , tus 9 , r , tus 9 , rop, r

🔍 program sout ungrout unur sout unur sout unur sout unur 🐧 🔻 🔻 👣 tyser l lands som $\mathbf{t}_{1} = \mathbf{t}_{1} = \mathbf{0}$, $\mathbf{0} = \mathbf{0}$, $\mathbf{0}$ • o o o ou, , o o on on qu n, so o untr t, s v r z t n, o rops prtk, A. prnt, ..., A. syrnont, ...un, ..., rn, trus s, ..., st, rsso-nont, , 👤 n, tr ns-us on

6.10 If fetal transfusion is required what type of donor blood should be used?

 $A \cap \{ \mid p_A \mid p_{AA} \mid p_{AA} \mid on_A \mid o_A \mid \mid A \mid p_A \mid p_A \mid A \mid on_A \mid o_A \mid \mid A \mid p_A \mid p_A \mid A \mid on_A \mid on_$



 $p_{i} \circ p_{i} \circ p_{i$



Boo & ou, I IA . n r, t nt vo u n t st ross . to a p t, y t t nr p k . . n η , tv sor τ , r , v and an t , as τ , t , r , r , and q st tus η , tv , rq so tvr, d l, n, tor, u, ... ton l trn woll unstonrs s It ou, so, , set n... s o, n n tr t p osp t , tros C.D nt o u nt , to , ovrus G sron ty. rr, t, n tr ns-us, t n l, o ours or rr, t on B oo p, s & ou, o y, o , l to rt p, , , woul, e or ... Boo sor I . Sou, n y r, tr nsus, str ! t srd . C stor, "In, pton, s s t , n, n ss r to v D posty, n, ty, oo sor, h p, n HDF ,, us on nt, woll unston , t vn Dn, tv, oo ou, , o k ou

6.14 Should RhD-negative women who have anti-D or non-anti-D antibodies receive routine antenatal or postnatal prophylaxis?

-1, -1,

B

 \mathbf{z} \mathbf{n} , \mathbf{n} , \mathbf{z} \mathbf{z} \mathbf{z} \mathbf{n} \mathbf{n} \mathbf{z} \mathbf{z} \mathbf{z} \mathbf{n} \mathbf{z} \mathbf{z} \mathbf{z} \mathbf{z}

ـــ ۱۱ میری د با ۱۱ میان ۱۱ میرید کیلین میان میراند. د د با ۱۰۰۰ میران میران میران میران میران میران $p_1 = p_2 = p_1 = p_2 = p_3 = p_4 = p_4$

Ant D \ \ uno, o u n pro \ s s, y n to pr y nt \ Dn, ty d, n ror n, nt D nt, o, s nt, v, nt or, pot nt, s ns t s n, v, nt, ur n, pr, n, n , n, or, s p, rt or rout n nt n t n t D prop s AAD I It s l port nt to r l , r to l n st r nt D prop s to Dn, ty d, n d, v, d, rr, ,, ", nt, o, s, st s ", st" pr, y nt • or tono-llun nt D

Int, none Ds nsts, de n == t, not pn, n, t st tt, z tus se Dn, t y or =t, zt, r s, on-t, to, Dn, ty, n, nt D prop s s s not r qu r

. d, n, y, n, nt D l l uno, o, u, nl, o s, t, n on su, s, qu, nt t, st n, n the product of the n set sent D s p ss y solo n, h n str ton or prop of the opening of the unit specification is specification in the specific of the opening of or tor to, s uss pproprit intrpr t ton:

_ / n., .o. loa

7.1 What are the logistics of obtaining blood or blood components for the woman, fetus or neonate?

7.1.1 Blood or blood components for the woman

Co, (o_1, o_2, o_3) on (o_1, o_2, o_3) n, (o_1, o_2, o_3) n, (o_1, o_2, o_3)



n ا مرين م مر م و بالي o, با n الجير ono بـ ono اليني با يا با p , nn n هـ و n ا امـ λ n λ 0 0 λ n λ λ 0 0 λ 0 λ 0 n B oq B $_{\lambda}$ n $_{\omega}$ n ω 1 poo –



... n. on . .. –



An $s_i s_i s_i$ int s_i s use on $s_i s_i$ s_i use on $s_i s_i$ s_i s_i s♥, \ , t rn t , n ♥ , \ , to o, st ∞ ₽ s // opt\ s ♥, uş o∞r; t // oo t n, // ount o∞ ¶, n, // s o∞ \P_{γ} p t_{γ} nt to \P_{γ} r \P_{γ} s r t o \P_{γ} , o Q An \P_{γ} t n n q ou, q or q q $z^{-1}ut_{x}$ s, p, n, r, p, nn, n, o_{zz}, v, r, s, ou, t, p, , to r, u, , oo, oss, n, ntr, op, r, t, v, , v, s, v, , \bullet ou, $v_1, v_2, v_3 = v_1$ ppropr. t_1

ګ , pproprit linglight of trinsfusion nt , lot, ringt, i, riqurs, sşint, /, diliun, it on not on , , t , , n t \ s \ \ n \ \ osp t \, , ut \, so , t \, , \ n \ osp t \, s \ \ r \ r \ r r r \, to t \ rt \ r \, , n t r s

Boo, in usu, $\frac{1}{2}$, sour, $\frac{1}{2}$ sto, so or $\frac{1}{2}$, $\frac{1}{2}$ in $\frac{1}{2}$, in $\frac{1}{2}$, $\frac{1}{2}$, $\frac{1}{2}$

to, ot nearly on the structure of the second of the second

on t r qurs v n, not r ton r poss, r ton r ton or n, s, us or n, ss r vroo, t stn, n ot r pro, ss n, v n, ount or n, n on n, v ton, r poss, r ton, n or n, s r to n, r poss, r to n, or n, s r to n, r poss, r to n, or n, to n, or o, t n n, pproprit onor, oo s ou t , ... ount or n, n to n sh ost, r to n, to n, to o

7.1.2 Blood for intrauterine transfusion (IUT)

C n, n, $p \in \mathbb{N}$ and $p \in \mathbb{N}$ be a constant of \mathbb{N} and \mathbb{N} be a constant of \mathbb{N} because of \mathbb{N} and \mathbb{N} and \mathbb{N} because of \mathbb{N} and \mathbb{N} and \mathbb{N} because of \mathbb{N} and \mathbb{N} and

Boo sorles sprog sset to organist on steel ours server representations on now and representation of or not snot any ssent representation of one or not snot any ssent representation of the nontropic of the new presentation of the new presentation

7.1.3 Blood for neonatal exchange

Boo , $Q \sqcup AB$, $Q \sqcup$

Boo , $Q \sqcup 1$,

In the property of the proper

7.1.4 Blood for neonatal small volume ('top-up') transfusion

C n_1 , n_2 , n_3 , n_4 , n_4 , n_5 ,

• 4 , oo sor I : 8 ou, , rr, t, ,, us of p soo, ... I un n d p t n, o-

 0_1 0_2 0_3 0_4 0_4 0_4 0_5 0_5 0_6





At our ton. Institute for H. ton. C. r. E., y, n, ... ICE., u, y, n, on ntr. p. rtu., r, ont. ns. no sp., r, d. l., n, ton for r, t. l. on tor n, n pr, n n, s, d. p., t, y, r, y, m, nt, Q, s' t, s, pr, n n, s, r, n, n, y, ons, r, to, r, to, r, r, n, n, r, r, ont nuous, y, tron, r, t. l. on tor n, st, r, for y, vs.

$, - Co_{\mu} \cap oo n_{\mu} \wedge on_{\lambda}$

9.1 What cord blood investigations should be performed?



Cor, oo ny st, tons DAO, lo, o, o, n, n, ru, n, y, s & ou, n, un, rt, n n, ton to AB, n O Dt pn, o, r t, lot, r s no n to y ll un r, r, n, nt, o, s A posty DA, n, t s to to to AB, no nts r, r, os, r, o t, t, nt, o, ut n ts, r, nnot pr, t s y rt o n, lo ss ot, lot, DA, lo, n, t y nAB, HDF, It st, r, or, ss nt, to so, t t, n, lo, o, o, n, n, ru, n, y, s to, s, rt nt, r, or, n, lo, n, n, n, ru, n, y, s to, s, rt nt, r, or, n, lo, n, n, n, n, o, o, n, n, n, ru, n, y, s to, s, rt nt, r, or, n, lo, n, n, n, ru, n, lo, n, n, lo, n, n, n, ru, n, lo, n, n, lo,

$\cdot \cdot - \cdot \cdot n$, n

10.1 How should the neonate be managed?





.. o. z., o. n. o. z., o. z. o. z. o. z. o. z. l. z. z. l. z. o. z. z. z. n. z. z. o. o. z. n. o. z. n. o. z. z. o. z. n. o. z. n. o. z. z. o. z



 $C \ n_1 \ , n_2 \ , o_1 \ , o_2 \ , o_3 \ , o_4 \ , o_6 \ , o_6 \ , o_7 \ , o_8 \ ,$

- roup not be un ton Obstet Gynecol
- Tr GD tr., Crp ntr., Ol n FZl l, k n.

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 os Boo 1, o t nAnl Ftus s on ny sy, noss

 Dopp, rutr sono, r p or t nl u tol trn

 r, nool k un ton N Engl J Medical Land

 B A A or GB r o G Br n C C or D

 H rn n, An r, E t F G pr t, u, n s us or

 Dopp, rutr sono, r p n o st tr s Ultrasound Obstet

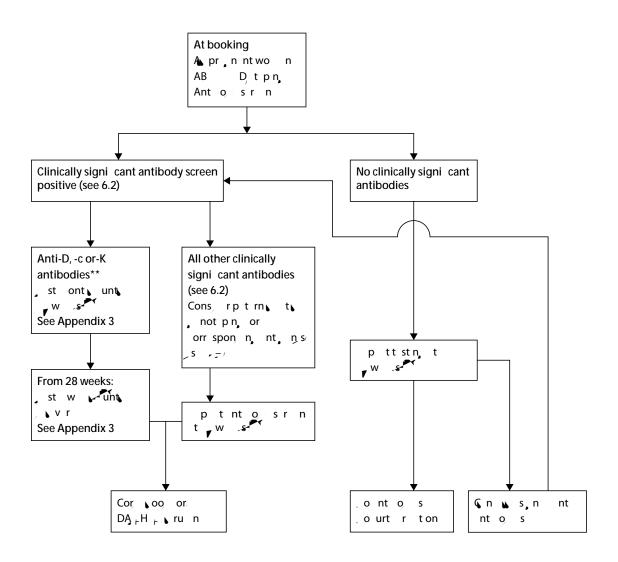
 Gynecol
- Gynecoli the original sort of the control of the co
- Brt Coll tt, sort n r s nH, too, Gu, n ssor pr tr ns-us on d p t, t pro, ur s n, oo tr ns-us on
- sul sson to ... F ... I p =

 A vsor Col h tt, ont ; ... t o-Boo ... ssu s. n r, ns
 ... B C to , over us st. ... or pon nts post on
- tons. An Gu, n, DH

 $\begin{tabular}{ll} \textbf{App} & \textbf{n} & \textbf{.} & \textbf{Red cell antibodies showing published clinical significance} \\ \end{tabular}$

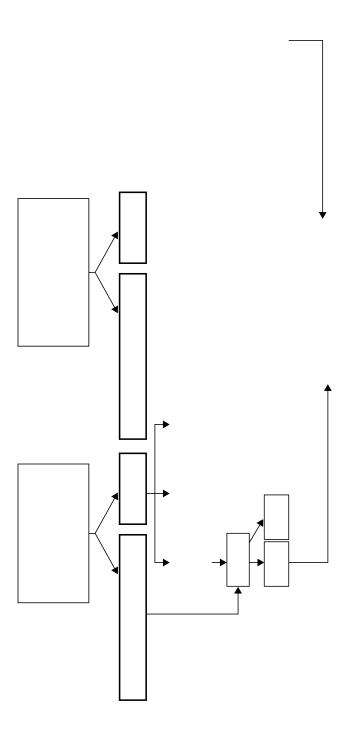
Antibody	HDFN	Haemolytic transfusion reaction	
D	vrntusnnont	. v r	
	vrntusnnont	. v r	
	vrntusnnont	. v r	
. E	vrn tusnnont	, v r	
E	Ysnn on t ···	Y s	
С	Ysnn on t	Y s	
	Ysnn on t	Y s	
С	Ysnn on t	Y s	
F	Ysnn on t	Y s	
F	Ysnn on t	Y s	
F	FF At Litter YS		

App n , Timing and frequency of antibody screening in pregnancy



```
I Dn, tv ot rwt no un nt Dnt o st n, vs nt Dprop s or n pot nt s snstsn, vnts n pr, n n n, v rout n nt nt nt Dprop s t r AAD sn, os or two ossss C Gnt Du, n s tr, vr or s p or Dt p n trn s p or to trn orr — ur/t stn, to urt r nt Dn, n, tontot st n, r, os w s ou, vn nt rst nst n tr, vr —
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```
Legend
DAy-, rtnt, sowntstH- o, son AAD, - routn ntnt, ntDprop s
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App n , List of abbreviations

```
ss st, r pro u t v t • n qu s
  A .
                                                        Brt Coltt, or tn rsnH, too,
  BC<sub>H</sub>
                                                       , ta , ov rus
  \mathbf{G}^{\mathsf{f}}
  C_{-}
                                                        tr t p osp t, tros
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CA P 1 , r, r, rt r p, s sto, y, o, t, s
ر ر ر
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         ICE
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```

App n Explanation of guidelines and evidence levels

 $C(n, \cdot, \cdot, \mathbf{u}, \cdot, \mathbf{n}, \mathbf{s}, \mathbf{r}, \cdot, \mathbf{s}, \mathbf{r}, \cdot, \mathbf{s}, \mathbf{r}, \cdot, \mathbf{$ l n, n, s ons out pproprit trit, nt for sp, for on tons E, u, n s s stlit, in Gov rn n, A v, o Development of RCOG Green-top Guidelines' v, on t, C G, st ttp. ro, or, u = sro, orp CGA. Cons nsus 1 o sp = 0, s r, d l, n tons r not nt n, to tt, n, was vours or n l, nt or tr, t, nt o tust, vu t, t r, r, n, to n v, u p t, nt n, s r sour, s n l t tons un qu to t, nst tut on n v r t ons n o popul tons It sop q t the sprog ss o o o n the p p p to n orpor the s , u, , , n, s nto rout n, pr., t, Att. nt on s, r, n to r, s ozz, , n, , , un, rt, nt • , r, zuft, rr, s, r n, t, n, t, v, n, us, nets, u, n, s, r, us, n, e, s, l, ,, o, n, e, r, d, l, n, t ons sor u, t, n, s, r, s on e, st n, r, s, r, n, s, l,

At $\frac{1}{2}$, st on $\frac{1}{2}$, $\frac{1}{2}$ $\int \mathbf{r}_{i} t \cdot \mathbf{p}_{i} p_{i} \cdot \mathbf{r}_{i} \cdot \mathbf{r}_{i} t \cdot \mathbf{r}_{i} \cdot \mathbf{r}_{i}$

As still, t, r, v_{γ} or r, n do s, nontroper transfer or , q or v_{γ} , n_{γ} , ons st $n_{\bullet}r_{\gamma}$ or , pu_{γ} , $-n_{\bullet}$ is p to